A STUDY OF REVERSE COMMUTERS IN THE CHICAGO METROPOLITAN AREA

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A STUDY OF REVERSE COMMUTERS IN THE CHICAGO METROPOLITAN AREA

Conducted for:

Regional Transportation Authority

Conducted by:

Total Research Corporation
Princeton, New Jersey

December 1991

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REVERSE COMMUTE STUDY
EXECUTIVE SUMMARY

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Introduction

Over the past two decades, significant suburban employment growth has occurred in major U. S. metropolitan areas, including the Chicago region. Suburban employment growth has had a major impact on commuting patterns as the suburbs have replaced the city as the primary work trip destination. Although public transit has traditionally provided an effective mode choice for the city destined commuter, it is difficult for transit to efficiently serve the low density, growing suburban job market. For reverse commuters, city residents who work in the suburbs, public transit services are increasingly important because the suburbs currently offer greater employment opportunities and in many cases, public transit is the only mode available to them.

This study reviews reverse commuting trends, attitudes, and trip characteristics in the Chicago area, and recommends steps to be taken by the Regional Transportation Authority and its Service Boards to enhance reverse commute services in northeastern Illinois.

Study Rationale and Background

In recent years, numerous national and regional studies have documented that city residents have been increasingly utilized to fill suburban jobs. The vast majority of these reverse commuters, nationally and in the Chicago area, utilize automobiles to commute. Chicago residents without access to an automobile however, have been unable to take advantage of suburban employment opportunities. Similarly, suburban employers have been unable to more fully utilize Chicago's large, underutilized labor pool.

Recognizing that a demand existed for reverse commute services, the RTA, Pace, and Metra have initiated various demonstration projects as a means of testing new reverse commute services to selected suburban employment centers. Although many of these services have been successful, there was a need for a comprehensive study to evaluate reverse commute trip characteristics, determine how services could be enhanced to best meet the needs of the reverse commute market, and determine transit's potential for expanding its share of trips in this market.

In September 1990, the RTA formed a Reverse Commute Study Team to obtain broad based input into the study's design. This team included representatives from the following agencies and departments: the Chicago Transit Authority (CTA), Metra, Pace, City of Chicago's Planning, Economic, and Public Works Departments, Chicago Area Transportation Study, Northeastern Illinois Planning Commission, Chicago Association of Commerce and Industry, the region's two transportation management associations, and the Metropolitan Chicago Information Center.

The Study Team recommended a three phase market research initiative involving an evaluation of reverse commute services both locally and in other major metropolitan areas, the hosting of focus groups, and an on-board survey of Metra reverse commuters. The Study Team also considered collecting data on the size, origins, and destinations of the region's reverse commute market, but opted not to seek such information in this study because this type of data would be available from the Census Bureau in late 1992. For the purposes of this study, a reverse commute trip is defined as a trip from Chicago to the suburbs.

In April 1991, a contract was awarded to Total Research Corporation of Princeton, New Jersey to conduct all aspects of the study in coordination with their subcontractor, LS Transit Systems of Bloomfield, New Jersey.

National Experience

Between 1960 and 1984, the population of U.S. cities increased by 16.5 million or 28%. Over the same period, the population of U.S. suburbs increased by 50.3 million or 92%.

As significant as this suburban population growth was, it was surpassed by suburban employment growth. In the U.S. between 1960 and 1980, suburban jobs increased by 140% as compared to a 48% increase in the number of employees working in cities. Consequently, the nation's suburbs currently contain close to half of all metropolitan area jobs as compared to approximately one third in 1960. Although the suburb-to-suburb commute represents the bulk of this increase, nationally reverse commuting increased by about 2 million and represented 15% of suburban destined work trips in 1980. Given the growth of suburban job opportunities throughout the 1980's, a consequential growth in reverse commuting has also taken place.

Over the same twenty year period, transit's share of the work commute market declined from 12.4% in 1960 to 6.2% in 1980 — a decline of 1.8 million trips. The private automobile's market share increased from 69.5% in 1960 to 85.9% in 1980 — an increase of 40 million trips. A major cause for this mode shift has been the decreased dominance of the central city as the major employment center in metropolitan areas, and the growth in suburban jobs where transit has a difficult task in serving work trips efficiently and cost effectively.

Northeastern Illinois Experience

The population and employment shifts in Northeastern Illinois have paralleled national trends. The City of Chicago's population decreased by 0.6 million between 1970 and 1990. Over the same period, the region's suburban population increased by 0.9 million. The suburban share of the region's total population increased from 52% to 62% between 1970 and 1990.

Between 1970 and 1985, employment in the City of Chicago decreased by 0.4 million while suburban employment increased by 0.6 million. Over this fifteen year period, the suburban share of the region's total employment increased from 42% to 58%. Although Chicago's population and employment is expected to increase slightly over the next twenty years, the suburban share of the region's total population and employment is expected to increase.

In 1980, 220,000 daily reverse commute trips were taken in the region. Census journey to work data indicates that transit provided 27,500 or 12.5% of total reverse commute trips in 1980, with 76% of the total travelling by bus, and the remaining 24% provided by the CTA rapid transit and commuter rail services. With the growth of suburban jobs since 1980, reverse commuting in the region is also believed to have increased. The actual magnitude of the increase will not be known until late 1992 when the 1990 Census journey to work data is available.

Since 1980, the automobile has continued to be the dominant mode (87.5%) of reverse commuters, but recent gains in reverse commuting on transit have been noted. Although comprising a small share of reverse commute trips, both Metra and Pace reverse direction ridership has shown gains. Metra experienced a 41% increase in reverse direction ridership between 1987 and 1991. Pace also experienced ridership gains of 15% on routes serving the reverse direction between 1985 and 1990.

Study Findings

The study found that reverse commuters are in many ways a heterogeneous population, differing among themselves in their socio-economic status, reasons for being reverse commuters, and attitudes toward mode choice. This heterogeneity applies to the relatively small population of Metra and Pace reverse commuters as well as the large population that commute by car. Characteristics of reverse commute trips on transit are generally longer than peak direction transit trips, involve multiple transfers often including a change of mode, have scattered destinations, represent various types of employment sites, and are not limited to the typical weekday commuting pattern. These reverse commuter observations are important to understanding the potential for future growth in the transit for reverse commuters.

Conclusions

The study indicates that a single "broad brush" strategy does not exist for the RTA and the Service Boards to adopt which would lead to notable increases in reverse commute ridership. The potential for transit to expand its reverse commute ridership base are limited at this time and will require many discrete actions. The report details a number of recommended actions to enhance reverse commuting using transit. The essence of the recommendations is that a variety of strategies must be employed to provide services that are customized to the specific situation and circumstances.

The thrust of many of the potential customized solutions will have to involve the provision of distribution services at the suburban end of the trip. The manner in which such service is provided will need to be innovative and responsive.

The results of this study also indicate that the estimation of the latent demand for transit reverse commuting cannot be easily determined. The lack of unifying characteristics of this type of trip, and the wide variety of transportation needs of potential transit reverse commuters, makes it difficult to effectively assess latent demand.

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INTRODUCTION

The Regional Transportation Authority (RTA) of Northeastern Illinois was established in 1974 and exercises overall planning and financial oversight of the public transit system in the Chicago region. Operations are the responsibility of three service boards: (1) the Chicago Transit Authority (CTA): (2) Metra: the Commuter Rail Service Board, and (3) Pace: the Suburban Bus Service Board. An overview of the complete system is provided in the section "Overview of the RTA System."

Similar to other major U.S. metropolitan areas, in recent years northeastern Illinois has experienced an increase in the number of Chicago residents commuting to suburban job locations. In response to this growing non-traditional or "reverse" commuting market, RTA and its service boards have implemented various programs and services designed to test how to cost-effectively serve the needs of the reverse commuter. To better understand and to further its ability to serve reverse commuters, the RTA commissioned Total Research Corporation to conduct a multi-phase study of this market. Under sub-contract to Total Research, LS Transit Systems has served as a consultant on this study.

RESEARCH OBJECTIVES

This study of reverse commuting in the Chicago area is targeted toward the requirements of the RTA to identify opportunities for enhancement of reverse commute services, primarily on the commuter rail lines of Metra, and the suburban bus lines of Pace connecting to the CTA. With a better understanding of the existing reverse commuter market (both users and non-users of public transit services), the RTA will be able to:

- delineate the characteristics of each market segment,
- design strategies on a line-by-line basis to better meet rider needs,
- define issues and generate marketing approaches to be further investigated,
- explore the reasons given for using (not using) public transit for reverse commuting, and
- probe reactions to concepts for increasing ridership.

PHASES OF THE RESEARCH

The study was conducted in three phases:

1. A review of the performance of existing reverse commute services in both Chicago and other metropolitan areas. This review included information provided by RTA from existing research sources and from interviews with RTA, Metra, Pace and CTA staff concerning their experience in serving the reverse commute market. In addition, a review was made of the performance of existing reverse commute services in both Chicago and in other metropolitan areas.

2. Six focus groups with reverse commuters. Three of the groups were comprised of reverse commuters who use Metra and/or Pace and three were comprised of those who drive. Three of these groups were conducted prior to the on-board survey and three after it was completed.

3. An on-board survey of all reverse commute passengers on eight Metra lines, that is, passengers who board trains in Chicago or specified close-in suburban communities on weekdays during the time period 5:00-9:15 AM and get off at suburban stations.

RESEARCH METHODOLOGY

The methods used to conduct each of the three phases of this study are described in this section.

Review of Present Reverse Commute Services

Interviews were conducted with representatives of the RTA and the three service boards, existing documents and data were reviewed, transfer activities were personally inspected at three CTA terminals and at Union and Northwestern Metra stations, schedules and ridership reports were analyzed, and a trip was taken on a reverse commute bus and train. In addition, research reports, time schedules and other documents related to rail commuter services in other North American metropolitan areas were analyzed to identify the extent of such services in those areas. A detailed sub-report was prepared on the experiences of the Metro-North commuter railroad in New York.

The results of the focus group and on-board survey phases of this study were reviewed in the context provided by the information gathered through these activities.

The Focus Groups

Six focus groups were conducted, three before the on-board survey was conducted and three afterward. The general coverage of topics was similar in all six groups. However, the first three groups contributed to the development of the questionnaire for the on-board survey while the last three groups probed issues that were defined after the survey results were analyzed.

Three of the groups were conducted with reverse commuters who use public transit -- about half used Metra and half Pace -- while the other three groups were with reverse commuters who drive to work. The public transit and car driver groups were further differentiated by household income. The three groups held prior to the on-board survey included: 1) public transit users with household incomes of under $25,000, 2) public transit users with household incomes of $25,000-$40,000, and 3) car drivers with household incomes of over $40,000. The second set of focus groups took place after the quantitative study and included: 1) public transit users with household incomes of over $40,000, 2) car drivers with household incomes of under $25,000 and 3) car drivers with household incomes of $25,000-$40,000.

Each group consisted of between 7-12 participants. The discussions lasted up to two hours each and were both audio and video-taped. In addition, representatives of RTA, Metra, Pace and CTA attended the sessions.

A number of methods were used to recruit participants: In-person recruiting at Metra and Pace locations, telephoning from a database, and telephoning qualified respondents from the on-board survey. The database used is a computerized sample of over 20,000 households in Chicago and its surrounding suburbs. This database contains background information such as ages, income, race, education, and employment status of male and female heads of household. The database also includes a record of prior focus group participation; this was used to screen out anyone who had recently participated in a focus group. Households that met study specifications were telephoned to locate and recruit car drivers of the income levels desired.

In-person recruitment was conducted at Pace transfer points at CTA's River Road, Dempster (Skokie) and Desplaines Av. rapid transit stations. High income public transit riders were recruited by telephoning qualified respondents who had participated in the quantitative phase and by in-person contacts at the Pace transfer points.

A moderator's guide was used to direct the discussions. Copies of the guides are to be found at the end of the report.

The reader should note that the results of a focus group study are not projectable into numbers of people. The small sample sizes and the recruitment procedures which allow for self-selection produce a none-projectable sample. The free-flowing nature of the discussions does not allow for quantification of comments. The results can be used to identify the important factors/variables that need to be considered and to develop hypotheses for further research. For this study, the results of the focus groups have also been related to the results of the on-board survey to develop the conclusions and recommendations that appear in the Highlights section of the report.

The On-Board Survey

The on-board survey was conducted on eight Metra commuter rail lines from Chicago. The complete computer tabulations of the on-board study results appear in a separate volume.

From C&NW Station (Madison Street)

- C&NW North Line (To Kenosha)
- C&NW North West Line (To Harvard)
- C&NW West Line (To Geneva)

From Union Station

- Milwaukee District - North Line (To Fox Lake)
- Milwaukee District - West Line (To Elgin)
- Burlington Northern Line (To Aurora)

From Randolph/South Water Street

- Metra Electric Division (University Park and Blue Island Lines)

From LaSalle Street

- Rock Island District (To Blue Island and Joliet)

The eight lines surveyed are the primary commuter rail services providing reverse commuter services in the Chicago area. The survey data were analyzed for the entire system and separately by line. However, since the Rock Island District line has very few reverse commuters, the results for it have not been analyzed separately.

Questionnaires were distributed to all passengers on trains departing each line's Chicago terminal before 9:15 AM who boarded the train within the city of Chicago, Evanston, Cicero, or Oak Park. Completed questionnaires were collected only from those passengers who disembarked the train at suburban stations beyond Chicago, Evanston, Cicero, or Oak Park. (Those who got off the train within those limits were asked to return their questionnaires blank.) Questionnaires were almost all collected by the interviewers on the train, but to allow for the possibility that some passengers would not have time to complete their questionnaires before getting off, the questionnaires were printed as self-mailers. As an incentive to cooperate, passengers were informed that if they returned a completed questionnaire, their name would be entered in a drawing for a free Metra Ten Ride pass.

The Questionnaire: The questionnaire was identical for all eight lines with the exception of the first two questions that required recording the names of the stations on which passengers boarded and got off their trains.

The custom-designed three-fold questionnaire was developed by Total Research Corporation in consultation with RTA. The following topics were covered in the questionnaire.

- Metra origin station and access mode to station
- Metra destination station and access mode to final destination
- Location of starting and ending points of trip
- Length and frequency of trip
- Type of ticket used and cost
- Past use/future use of Metra
- Purpose of trip

Of Those Going To Work

- Type of employment facility
- Length of employment there
- Car availability
- Employer reimbursement of travel costs

Asked of Everyone

- Likes and dislikes about riding Metra (open-ended)
- Paired comparisons of characteristics of commuter ridership on Metra to measure the importance of each attribute
- Ratings of Pace and CTA
- Background characteristics of reverse commuters

Ninety-six versions of the questionnaire were developed. The number of versions reflects the following: For each of the eight train lines, corresponding answer choices were provided for two questions that required recording the names of the boarding and destination stations. Also, a four-way split sample design was used for the series of paired comparisons. Finally, Spanish and Polish versions of the questionnaires were available to passengers who could not read English. Therefore 8 (lines) times 4 (versions of questionnaire for paired comparisons) times 3 (languages) results in the 96 versions of the questionnaire.

A copy of the English language questionnaire for one of the lines can be found in the Technical Appendix.

Fieldwork: A local field service firm that was approved by RTA was hired to pretest the survey method and administer the field work. The method that was used was: Questionnaires were distributed to all passengers as they boarded a train. Completed questionnaires were collected only from those who got off at suburban stations. Those who got off sooner were asked to return their blank questionnaires.

A senior research staff member from Total Research conducted an in-person full briefing of interviewers and supervisors of the field service firm in the presence of an RTA representative. Quality control was implemented further by having another senior research staff member from the Chicago office of Total Research (who was not known to the interviewers) ride at least one train each day of the survey. This was to ensure that the questionnaires were being distributed and collected properly. The Total Research Field Coordinator contacted the supervisor of the field service daily and prepared daily status reports on interviewing progress.

The survey was conducted on Tuesdays, Wednesdays, and Thursdays during the period May 14-23, 1991, plus Wednesday May 29 as a make-up day. All reverse peak trains on the eight lines were surveyed, except for the two trains that were used for the pretest. A total of 1,084 usable questionnaires were collected out of 1,353 that were distributed to passengers who qualified as reverse commuters, for an overall completion rate of 80 percent. It should be noted that this completion rate applies to all eligible passengers on the trains that were surveyed who accepted a questionnaire. In this sense, the survey is not based on a sample, so the results are not subject to sampling error.

However, the coverage of reverse commuters is incomplete for the following reasons:

1. Some reverse commuters did not accept or return a completed questionnaire.

2. Since the survey was conducted on Tuesdays, Wednesdays and Thursdays only, reverse commuters who do not ride on those days were not included.

3. All reverse peak trains on a given line were surveyed on the same day. Thus, reverse commuters who do not ride Metra on the day their line was surveyed were not included.

4. Each train was surveyed only once. Therefore, reverse commuters who did not happen to be on a train on the particular day on which it was surveyed were not included. For example, those on vacation or sick were not included.

5. Off-peak reverse commuters were not included.

This incomplete coverage could lead to some indeterminable degree of sample bias.

Also, it should be noted that Metra users comprise a small segment of all reverse commuters. Therefore, even though the survey of Metra users provides valuable information about that segment, it should not be used to make inferences about all reverse commuters.

Research Reports

The Highlights section presents key study findings, recommendations, and suggestions for future research. The body of the report presents the detailed results of all three phases of the study, plus a technical appendix. An Executive Summary of this report is available in a separate volume. A question-by-question tabulation of the on-board Metra survey is reported in a separate volume in the form of a computer printout and on a computer diskette. Videotapes of the six focus groups have also been provided to RTA.

HIGHLIGHTS OF THE STUDY

TOTAL RESEARCH CORPORATION

HIGHLIGHTS OF THE STUDY

RESEARCH FINDINGS

RTA System Requirements and Capabilities

1. Population and employment trends for the six county area served by the RTA indicate that the reverse commute market will grow over the next twenty years. Even though recent growth has slackened as a result of increases in suburban rental costs and in available office space in the Loop, a sizable market is expected by the year 2010:

   a. 4.5 million jobs are projected for all six counties.

   b. 2.8 million suburban jobs are projected.

2. The RTA system now in place is an intermodal commuter network that has considerable capability for serving reverse commuters as well as inbound commuters from the suburbs.

   a. The reverse commute capability is based on a history of serving reverse commuters by CTA, Pace, Metra and their predecessor companies.

      - Early routes of CTA predecessor companies served factory locations in outlying areas.
      - Interurban lines served northern lake shore communities.
      - The Skokie Swift line opened up a new market serving suburban offices and retail shopping centers.

b. The network consists of commuter rail, heavy rail rapid transit, city bus and suburban bus service, with numerous intermodal connecting and transfer points. It is served by the consolidated Travel Information Center (TIC) which answers a daily average of 10,000 calls related to CTA, Pace, and/or Metra.

c. The fare structure provides for inter-CTA and Pace transfers, and Metra add-on passes for CTA and Pace connecting buses.

3. CTA, Pace and Metra each provide reverse commute service, but with limitations.

a. CTA's role in the reverse commute market has evolved as a connector of city residents to the suburban rail and bus transportation system.

- Reverse commute access to Pace and Metra is to a large degree via CTA bus and rail routes and connecting terminals.
- The CTA fare structure is only partially integrated with PACE and Metra so that the many reverse commuters who buy one-way tickets are not provided with an integrated fare.
- Transfer points and schedules are only partially integrated with Pace and Metra, so that poor service is provided to reverse commuters who transfer from CTA to Pace or Metra.

b. Pace provides four types of reverse commute services.

- Traditional services, based on predecessor and new routes, offer maximum trip flexibility as it extends the city grid with frequent bus service. But, long, time consuming routes have limited reverse commute ridership.
- Reverse express service, mostly during peak hours plus limited midday service on some routes, has been successful. The combined ridership of express buses plus local buses from which express service has diverted riders has been increasing over time.
- Subscription bus service, from centralized loading points to specific employment centers, is recent and limited. They cannot be fully evaluated at this time.
- Reverse feeders, from suburban Metra stations to employment sites have been available on a limited number of routes with limited schedules. Their potential cannot be fully evaluated without more experience.

c. Metra provides reverse commuter service on eleven of its thirteen rail lines.

- The total of reverse direction ridership during peak morning hours has increased steadily from 2,354 in 1988 to 3,257 in 1991. But, this ridership still accounts for a small part of total Metra ridership during peak morning hours -- 3,144 outbound riders compared with 117,477 inbound riders.
- One-third of reverse ridership during morning peak hours is concentrated on only eight trains.

- Schedules and frequency of service is oriented to inbound commuters, with limited schedules and few trains for reverse commuters.

4. A review of the experience in other metropolitan areas in serving reverse commuters: (a) shows that RTA has some advantages in this area and (b) provides some guidelines for further development of such services.

   a. Public transit services for reverse commuting have been most successful in areas like Philadelphia and Toronto. These areas are similar to Chicago in that an existing network was already in place or in which an existing transit system was extended beyond city lines.

   b. Successful strategies have involved:

      - block type scheduling (headways with equal time periods)
      - extending existing lines to form cross-county links to new development areas
      - establishing peak hour reverse express routes
      - establishing single-fare zones or regional inter-agency fare structures
      - developing schedules based on bi-directional needs.
      - developing local distributor bus routes from suburban commuter rail stations.

Market Issues

1. Reverse commuters constitute a heterogeneous population despite their relatively small size.

   a. Participants in the focus groups varied considerably in occupation, income, reasons for being a reverse commuter, nature and length of their reverse commuter trips, and attitudes toward public transit.

   b. Metra rider characteristics, as measured in the on-board survey, show them to come from all walks of life. Metra reverse commuters do not come predominantly from a few market segments, although some segments are disproportionately represented.

   c. The different Metra lines differ to some extent in the characteristics of reverse commuters who use each one.

2. The following are key demographic characteristics of reverse commuters who use Metra:

   a. Women outnumber men to some degree, though, as in the general Chicago area population, the sex ratio is almost even.

   b. As compared with the Chicago area population, Blacks and Hispanics are underrepresented among Metra reverse commuters. Just over half of Metra reverse commuters are white. An RTA report based on 1990 census data shows that two-fifths of the combined Chicago, Evanston, Oak Park and Cicero population is white.

c. Young adults under 45 make up the bulk (about two-thirds) of Metra reverse commuters.

d. All income levels are represented, though modest and low income representation is relatively high. Over one-third have family incomes less than $25,000, but about one-fourth have family incomes over $40,000.

3. Reverse commuting involves long trips for most. Focus group results suggest that this is particularly so for those who use public transit.

a. In the focus groups, public transit users reported one-way commutes of forty-five minutes up to two hours. Non-users reported somewhat shorter trips of one-half hour up to one hour, though a few reported longer trips.

b. Among Metra reverse commuters, almost two-fifths reported trips longer than 1.5 hours, while less than one in ten had trips less than one-half hour.

c. The 1980 average for work commutes from central cities to suburbs was 24 minutes (total U.S.). In 1980, average travel time for Chicago area reverse commuters who used cars was 35 minutes.

4. Related to the length of their trips, commuting costs are high for those who commute frequently. Nonetheless, many do not use discounted fare passes or Link-up.

a. Just over one-third use monthly passes, while slightly fewer use one-way tickets. About one-fourth use ten-ride passes, and about one-twentieth use weekly passes. A 1985 study reported a considerably higher incidence of use of monthly passes among all Metra commuters.

b. Almost two-thirds of monthly pass users do not have a Link-up pass. The 1985 study reported a smaller incidence of use among peak direction commuters.

c. The average expenditure for monthly passes is $91. This compares with an average of $3 for one-way tickets. For those who commute round-trip three days a week (or about 15 days a month for a total of 30 trips) and buy one-way tickets, therefore, the average monthly commuting cost is about $90 a month.

d. The average cost for ten-ride and weekly passes is almost identical -- $27 and $26 respectively.

e. In the focus groups, some participants whose commuting needs rule out monthly passes did not realize how they might be able to use ten-ride passes. Others who could use monthly passes said they did not have the ready cash to buy them.

f. Many of the focus groups participants were unaware of Link-up passes.

5. Reverse commuting is predominantly a daily, weekday activity. Nonetheless, weekend commuting and commuting less than five days a week is not uncommon.

   a. Focus group participants were recruited only from those who commute to work on weekdays. Even so, some work on weekends, some part-time, and some less than five days a week.

   b. Among Metra riders, almost two-thirds commute five days a week, and weekend commuters account for about two in ten of those five times a week commuters.

   c. Those who commute less than five days a week are divided about equally among those who commute 3-4 days a week, 1-2 days a week, and less often.

6. Riders on Metra reverse commute trains are predominantly commuting to work. However, they differ considerably with respect to their employment.

   a. Over four-fifths commute to work. Only a handful are school commuters or travel for personal/pleasure reasons.

   b. Those who are commuting to work are employed at a wide variety of work sites. About one-third are employed in office buildings, split almost evenly between multi-story and small office buildings. About one in six are employed in private residences and an equal proportion at manufacturing plants. Small numbers work at retail establishments, hospitals or other health care sites, construction sites, or at a school.

7. A substantial proportion of Metra reverse commuters constitute a new market in the sense that many have been riding Metra as reverse commuters for a short time. Indications are that, barring unforeseen changes, much of this market will stay with Metra. Furthermore, if current trends persist, the potential for growth exists -- provided Metra can attract its share of a growing population of reverse commuters. However, attracting a substantial share of new reverse commuters may be very difficult.

   a. Almost two-fifths of Metra reverse commuters have been using Metra for less than one year to get to their current destination.

   b. Almost nine in ten expect to continue using Metra in the future to get to their current destination: Two-thirds anticipate that their continued use will be for a year or more.

   c. One major reason for being a reverse commuter that came up in the focus groups is that workers followed their jobs when employers relocated from Chicago to a suburban site. This reason was given by both users and non-users of public transit.

   d. The overwhelming majority of Metra reverse commuters going to work report that their employers do not contribute anything to the cost of commuting. Focus group participants said that most employers are not aware of or interested in the needs of reverse commuters (e.g., having a shelter for waiting for a bus or accommodating working hours).

e. Participants in the focus groups reported that using public transit would add significantly to the length of their trips, that routing is often inconvenient, that inadequate scheduling is a barrier, or else does not serve the neighborhood where they work.

8. The availability of a car, attitudes toward cars vs. public transit for commuting, and the suitability of the public transit network for commuting needs each affects whether public transit is used for reverse commuting.

a. As noted above, public transit routes either do not serve the neighborhoods where reverse commuters work or else provide unsatisfactory service.

b. Over half of Metra reverse commuters have no choice about using public transit since they do not have a car available for commuting. In the focus groups, some public transit users indicated they would consider driving if a car were available to them. Factors that might lead to their switching to cars include reduction in travel time and added flexibility to travel schedules.

c. Among the close to half of Metra reverse commuters who do have an available car but still use public transit, the most important reasons for doing so are: less traffic stress, convenience, and reduced cost.

d. The focus group results suggest the hypothesis that using public transit even when a car is available may be more characteristic of upper than lower income people. Conversely, the focus group results suggest the hypothesis that the unavailability of a car may be more of a problem for lower than for upper income people.

9. Access to boarding and destination stations tends to be of limited importance to current Metra reverse commuters. Similarly, satisfaction with ease of access is no more than moderate. Since these ratings come from Metra riders who have had to solve problems of access, a reasonable inference is that improving access would add to satisfaction with Metra service. With respect to destination stations in particular, only those who are within walking distance of their final destination -- and they are a minority of all Metra users -- do not have an access problem, and restricting ridership only to those reverse commuters might significantly limit the market for Metra ridership. In Chicago, CTA rail and bus serve the need of getting to a Metra station for a substantial share of reverse commuters. In the suburbs, however, use of Pace to get to one's final destination is limited.

   a. Between six to seven in ten reverse commuters who ride trains (Milwaukee West, Milwaukee North, and Burlington Northern) that originate at Union Station board at that station, despite the fact that its location is perceived by some to present difficulties. Also, over half of reverse commuters who ride these lines use CTA rail or bus to get to their boarding station, and a substantial number walk.

   b. Among reverse commuters who ride trains (C&NW North, C&NW West, and C&NW Northwest) that originate at the Madison St. station, large proportions (from one in seven to one in four) board at that station despite the facts that it is also perceived to be a difficult location. For all three lines, the majority either use CTA rail or bus or else walk to their origin Metra station.

c. Regarding Metra Electric, six out of ten reverse commuters who use it board at the originating Randolph St. station. Four in ten of all riders of this line walk to their boarding station, and almost as many use CTA rail or bus.

d. On all lines, large proportions use non-terminal stations which often present access difficulties related to the station location and/or CTA connections.

e. To get to their suburban destination after getting off Metra, less than one in ten use a Pace bus. The great majority either walk (for most lines close to or more than half do so) or are picked up in a car by someone else. Passenger awareness of station locations and routes can also be a problem.

Market Segments

1. The focus group data indicate there are two motivational segments of reverse commuters -- voluntary and involuntary.

   a. Voluntary reverse commuters are city residents who looked for a job in the suburbs even though they live in the city. They believe job opportunities for them are better in the suburbs, they typically have a car available to them for commuting, and they tend to be non-users of public transit. Voluntary reverse commuters appear to be primarily moderate and higher income people.

b. Involuntary reverse commuters are city residents who worked in the city and followed their jobs when their employers relocated to the suburbs. Some have cars available to them for commuting while others do not. Those who do not are, of necessity, users of public transit. Those who do have an available car split between users and non-users of public transit.

2. Three demographic segments of Metra reverse commuters are identifiable from the on-board survey data. These three segments comprise an estimated three-fourths of Metra reverse commuters.

a. Low-income minority women, employed primarily as domestics: They constitute an estimated one-tenth of all Metra reverse commuters and a substantial proportion of reverse commuters on the C&NW North and Milwaukee North lines. Compared with other reverse commuters, they are likely to commute less than five days a week, to buy one-way tickets, and not to buy Link-up passes. Their employers are likely to pick them up at their destination Metra station.

b. Low-income minority males: They tend to be relatively young factory workers. They constitute an estimated one-tenth of all Metra reverse commuters and a substantial proportion of reverse commuters on the Milwaukee West line. Compared with other reverse commuters, they are likely to have been using Metra for more than a year to get to work, to buy monthly passes (but not to use Link-up), and to have long commuting trips. They are likely to walk from their destination Metra station to their place of work.

c. Moderate and higher income white males: They constitute well over half of all male Metra reverse commuters and are made up of two sub-categories: (i) Those who are middle aged constitute a substantial proportion of reverse commuters who ride the C&NW Northwest and the C&NW West lines. Compared with other reverse commuters, they are likely to have started reverse commuting within the past year, have long trips, and to work in an office building. They are also relatively likely to have a car available for commuting but want to avoid the stress of driving. They want more frequent Metra service but comment favorably on Metra employees. (ii) Metra Electric reverse commuters include a concentration of older riders whose trips are relatively short and have been commuting for a relatively long time.

IMPLICATIONS AND RECOMMENDATIONS

1. Marketing Goals and Priorities

The fact that only a small proportion of the total reverse commute market now uses public transportation, plus the fact that the size of the market is likely to grow over the next twenty years, presents a challenging opportunity to RTA, CTA, Pace and Metra. Priorities for increasing the market share that is served by public transportation have to be defined in terms of short-term and long-term objectives.

a. Top priority for the immediate future should be given to retaining the patronage of reverse commuters who are current users of public transit.

b. Equally high priority should be given to maximizing the appeal of public transit to people who are likely to become reverse commuters in the near future.

c. Converting current car drivers to public transit should be a long-term goal.

2. Utilizing the Existing Network

Although there is a considerable public transit system in place to serve the reverse commute market, the system as it now exists does not meet many of the needs and wants of reverse commuters who drive to work. Only as the system develops a track record for satisfying current users is it likely that current car drivers will give serious consideration to public transit. However, since public transit does have an appeal to some current reverse commuters, every effort should be made to capitalize on those positive factors among new reverse commuters. Making better use of currently underutilized resources can contribute to this effort.

3. Service and convenience

Improving service to meet the convenience standards of reverse commuters must be given top priority if current ridership of reverse commuters is to be sustained, let alone increased.

Service frequency and coverage provided by CTA have accustomed many Chicago residents to use public transit. A useful goal when setting standards for suburban service for reverse commuters would be to meet the expectations they have developed through their experience with CTA.

Major concerns regarding reverse commuter service have to do with: reliability of service and frequency of scheduling. Satisfactory performance in these respects would enable reverse commuters to rely on their expectations as to how long a trip will take and how long they will have to wait if they miss a train or bus.

Specific problems that need to be addressed are:

a. Span of coverage:

- Metra: The first outbound train in the morning may not reach suburban job sites until after 7:00 am. Also, some express trains may skip intermediate stations just at shift time.
- Pace: Often the last return bus trip is at 6:00 or 6:30 p.m., precluding working overtime, or else service is not provided on Saturday or Sunday.

b. Frequency of service:

- Metra: Some reverse direction headways are hourly, even on the best corridors.
- Pace: Connecting suburban bus headways are often at 30, 40, or 60 minute intervals.

c. CTA rail and bus connections to Metra and Pace have to be improved with respect to scheduling, physical facilities, and fare structures. Schedules have to be integrated, past programs to develop suitable physical transfer points have to be expanded, and additional integrated fares have to be developed.

d. Transfers: Many reverse commuters who use public transit have to make at least one transfer. Two or even three transfers are also necessary for some. Each transfer creates a time delay and an uncertainty compounded by possible long headways on one of the links. The physical setting for transfers is often inconvenient, physically uncomfortable, and even threatening. This is a problem that is not unique to reverse commuters, but is especially important to those who have the option of driving to work.

e. Route networks and station or stop location:

- Metra: The suburban station may be remote from the job site. In many cases, sidewalks are lacking for safe pedestrian access. Connecting Pace route may not exist or when they do they are often circuitous and time consuming.

- Pace: Bus stop locations are often remote, not clearly marked, or physically uncomfortable or dangerous. Passengers and/or drivers may not understand stop locations or rules for stopping. The bus route may remain on the major highway and not enter an industrial or office area, thus requiring a long walk for passengers.

f. Reliability: While on-time performance of commuter trains is high, bus operations are more dependent on driver performance and traffic. Arriving on time for work is crucially important. In the evening, not missing a bus, or a connecting bus or train, to get home at an expected time is equally important. Where service is infrequent, reverse commuters are afraid of missing the bus.

g. Express service:

- Metra: Many commuter rail lines operate zone or express trains in peak direction service, skipping intermediate stops or serving separate zones. In the reverse peak direction, express trains are more limited to equipment moves that return equipment to the suburbs for a second trip. The local train stopping at each station results in additional travel time. On the other hand, express trains may reduce service to other reverse commuters at other intermediate stations.

- Pace: Express bus routes from CTA rapid transit terminals via toll roads or expressways have proven very popular. Reducing travel time and direct routing improves the overall assessment of bus service.

4. Comfort and security

Commuting to the suburbs by automobile has a strong competitive advantage for reverse commuting, despite the fact that in some ways public transit performance is satisfactory. Improving Metra and Pace service with regard to comfort and security is likely to be an effective tactic for retaining reverse commuters who now use public transit and for attracting a share of new reverse commuters.

- Metra: Although Chicago commuter trains have a long established high standard of comfort, including air conditioning and more comfortable seats, Metra suburban rail stations are a negative. Many stations are closed in the afternoon and evening hours, so that passengers using those stations lack the amenities of shelter in bad weather and heating in the winter. Also, especially after dark concern about personal security may become an issue.
- Pace: Although Pace rates well regarding cleanliness, air conditioning and comfort, the lack of bus stop shelters and poor transfer facilities are serious deterents.

5. Cost

One key problem is lack of understanding of the true cost of using a car for reverse commuting as compared with using public transit. However, informing reverse commuters about the true cost is unlikely to be sufficient to convert to public transit those current reverse commuters who are now automobile users and think the extra cost is worth it. A sense of value received for the relatively low cost of public transit must also be developed.

Another key cost problem is resentment among current users concerning commuting fares, for example, the Pace express bus premium extra fare charged to monthly pass riders. Fare structures that facilitate travel over long commuting distances, especially intermodal travel, need to be developed. Ways of making such fares available to low income people who cannot afford large monthly payments are especially needed.

6. Communications and promotion

Understanding what makes a "City Person" who works in the suburbs continue to live in the city is fundamental to communications and promotion of public transit to reverse commuters. Significant influences include perceived life style (such as cultural and entertainment activities), but also family, community or ethnic roots; income and cost considerations, or just liking the convenience and excitement of city living versus the perceived boring quality of suburban life. These influences provide a context that will affect how effective any promotional campaign can be.

a. It is important that reverse commuters have easy access to information about how to use public transit for getting to suburban jobs. Schedule and route information has to be disseminated. The public's awareness of the RTA Travel Information Center and its telephone number are important assets in this connection. The availability of up-to-date timetables at Metra stations, and not only the downtown terminals, is also a current asset. However, an effort is needed to make Pace timetables widely available.

b. Given the availability of schedule and route information, the next task is to establish the perception of public transit as a reasonable alternative to automobiles for reverse commuters. Perceptions of the suburbs as "car country" need to be overcome if public transit is to be accepted as a reasonable alternative. Themes that can be used for this purpose include frequency of service and route coverage for those predisposed to use public transit, and, flexibility and convenience for those who prefer to drive. For both types of reverse commuters, shortness of the commuting trips taken by public transit is also important. When applying these themes, it should be kept in mind that the automobile provides standards regarding convenience, comfort and cost for both users and non-users of public transit.

7. Employer cooperation

In former days, an employment advertisement might have stated "close to bus (or elevated)" to attract new workers. With the shift of work to the suburbs, it is even more important that employers assist in advising on the availability of public transit. Current programs should be continued, strengthened, and expanded.

a. Firms that are known to be relocating to the suburbs should continue to be contacted and provided with a set of transit information packages to be distributed to each employee who is being transferred.

b. Employers of reverse commuters should continue to be contacted about making slight adjustments in working hours that would be more appropriate for meeting train and bus schedules.

c. Current efforts to provide employer sponsored van service to Metra stations should be expanded on a demonstration basis.

d. Employers should be encouraged to include information on how to get to the employment site by public transit in their hiring interviews.

e. The tax free $21 monthly transit incentive that employers can offer to both current and new employees needs to be promoted. It can be pointed out to employers that by providing free parking, they are in effect offering auto users an incentive not available to the transit user. In the future, the Clean Air Act will require employers to take steps to reduce auto usage. Encouraging voluntary involvement now should be an RTA goal.

In each of these cases, employer cooperation will not be forthcoming unless the value to the employer can be demonstrated. Public transit gives employers access to a larger labor market, reduces the need for investing in land for parking, and is vital to reducing air pollution as required by the Clean Air Act.

FUTURE RESEARCH NEEDS

The results of this study have identified a number of issues that merit investigation. We recommend that further research deal with these issues. They include:

1. Confusion and lack of information regarding the comparative costs of public transit vs. driving for reverse commuters makes it difficult for them to assess validly value received from each mode of commuting. Effective ways of communicating accurate cost information need to be identified. Any effort in this direction should also identify how much of a savings must a car driver achieve to be converted to public transit.

2. Ways of obtaining the cooperation of employers need to be developed. Two approaches for achieving this are:

   a. Investigate employers who have recently relocated to the suburbs, or plan to do so in the near future, regarding problems they have encountered, or expect to encounter, in retaining staff who live in the city, how they deal with such problems, and their beliefs as to how public transit can be of help to them. Attitudes toward employer subsidies of commuting costs should also be investigated.

   b. Investigate long-term suburban employers regarding their interest in recruiting staff from city residents and problems they have encountered in that regard. Many of the specific issues listed above with respect to recent relocaters should be covered.

c. Routes and schedules of Pace buses and also of CTA buses, should be evaluated and new routes developed with respect to (a) facilitating transfers between Metra and CTA rail, (b) providing access to places of employment, and (c) shortening the length of trips for reverse commuters.

d. Working hours of reverse commuters need to be identified so that schedules can be re-examined with respect to how well they fit those working hours.

e. Investigate how reverse commuters who use public transit learned what modes of commuting are available to them and how this compares with the behavior of non-transit users. This comparison would help identify the ways in which decisions to use public transit rather than private transportation have been influenced by communications. This information can be used to develop effective procedures for educating reverse commuters about public transit. Topics to cover include: routes and schedules, length of trip, costs and passes.

f. The use of alternative commuting modes, especially vans, needs to be investigated. Markets to which such modes are attractive should be identified.

STUDY FINDINGS

TOTAL RESEARCH CORPORATION

REVIEW OF PRESENT REVERSE COMMUTER SERVICES

TOTAL RESEARCH CORPORATION

INTRODUCTION

In examining the reverse commute market in the Chicago region that is served by RTA, it is important to review the performance of reverse commute services now being provided in Chicago compared with other similar metropolitan areas. During the past decade, RTA and the three service boards (CTA, Metra and Pace) have recognized changes in population and employment and developed strategies and marketing programs designed to increase both ridership and passenger revenues. These programs are aimed at specific customer-oriented functions in addition to those provided to Loop bound commuters, such as off-peak and weekend service, intra-suburban travel and reverse commuting.

The RTA in this study seeks to provide overall direction to both the RTA and its service boards in the development of policies and programs to meet both the current and future needs of the reverse commute market. This is a very difficult market to understand and has many characteristics of the intra-suburban commute market.

Reverse commuting requires a combination of modes and services of CTA, Pace and Metra to meet travel needs. While the first elements of an overall regional fare structure are in place, there is a need to identify and experiment with joint fare instruments to facilitate transfer between modes and systems for the daily or weekly (ten ride) pass holder as well as the monthly ticket holder.

Numerous changes have taken place in population, housing and employment in the past 20 years. A detailed analysis of the U.S. Census 1990 Urban Transportation Package (available in 1992) will provide updated information on the overall size and characteristics of the current reverse commute market in the Chicago region. Analysis of the census data, in conjunction with the information from this study, will be a useful tool in better understanding the reverse commute market and to respond to such new critical issues as disabled accessibility, clean air and the environment.

In this effort, market analysis and ridership forecasting are two very basic, important activities. Service segments where additional or revised service is needed must be identified. This is dependent on an analysis of both geographic markets and market segments as defined by travel patterns. The RTA has recognized this need and, in working with the Service Boards, has responded to changing demographics.

Population and Employment Trends

The overall population of the six counties in which RTA operates (Cook, DuPage, Kane, Lake, McHenry and Will) has increased from 6.9 million in 1970 to 7.2 million in 1990 and is projected to increase to 8.3 million by 2010. The population is split 38% City of Chicago and 62% suburban; 52% of the region's suburban population is in suburban Cook County. The City of Chicago's population dropped from 3.3 million in 1970 to 2.8 million in 1990 but is expected to increase to 3.1 million in 2010. In summary, the suburban population grew by 23% between 1970 and 1990 while the City of Chicago declined by 19%. However, the downward trend of Chicago's population is expected to reverse by 2010.

Employment in the six county area is also growing. It increased from 3.1 million in 1970 to 3.4 million in 1985 and is projected to increase to 4.5 million in 2010. Employment in the City of Chicago declined from 1.8 million in 1970 to 1.4 million in 1985 but is expected to reach 1.6 million in 2010. Suburban employment increased from 1.3 million in 1970 to 1.9 million in 1985 and is expected to reach 2.8 million in 2010. Suburban Cook County and the City of Chicago account for 76% of the regional employment.

The above changes in population and employment clearly set the stage for this study of reverse commuting in the Chicago region. More diverse job opportunities have developed in the suburbs and created an opportunity for the RTA and its three operating agencies to attract a new type of rider. While considerable growth in suburban employment has occurred and is projected, there are signs of some stabilization and slackening of the pace. Heavy concentrations of new office space in the Loop and increased rental costs in the suburbs as well as the overall decline in the economy have reduced the shift in job opportunities.

Overview of the RTA System

The six county RTA system is truly an intermodal system of commuter rail, rapid transit, city bus and suburban bus. Total ridership increased to 682 million in 1990 after declining the four previous years. CTA carried 84% (570 million) of the riders (62% on CTA bus, 22% on CTA rail). Metra carried 72 million riders (10%) while Pace carried 40 million (6%) of the total RTA riders. Both Metra and Pace ridership declined in the early 1980's due to fare increases and service cuts but has since stabilized and is now growing steadily.

The RTA fare structure includes provision for inter-CTA and Pace transfers and passes as well as Metra add-on passes for CTA and Pace connecting buses.

The RTA operates the consolidated Travel Information Center (TIC) with over 40 trained operators answering an average of 10,000 daily calls. Time tables and maps are available for all routes.

The RTA's capital asset base is valued at $16.3 billion. Action by the state legislature in 1989 provided additional funding for infrastructure renewal. The new funds increased the RTA's five year capital program to $2.3 billion. While this is a first step in providing capital funding, it only begins to address the total capital needs of more than $8.3 billion.

The RTA, in conjunction with CTA, Metra, and Pace is constantly evaluating its service, its markets, and its capital requirements. The ongoing strategic planning process, the engineering assessments of the physical plant, and the comprehensive marketing efforts such as in developing reverse commuting are indications of the viability of the RTA system in serving the six county Chicago region.

The CTA: The Chicago Transit Authority (CTA) serves the city of Chicago and 38 suburbs. Its 2,200 buses and 1,200 rapid transit cars provide service on 132 bus routes and 7 radial rail lines. 1.8 million riders use the system on an average weekday. Service is provided 24 hours per day on much of the system. The budgeted recovery ratio for 1991 was 52.4%. The CTA provides connecting subway, elevated and bus services to Metra's four downtown stations. In addition, the C&NW North Line connects to the CTA rapid transit system at Evanston, the

Northwest Line at Jefferson Park and the West Line at Oak Park. The Metra Electric Line operates through the heavily populated Chicago neighborhoods of Hyde Park and the South Side. The two Milwaukee District routes and the Burlington Northern Line pass through other Chicago neighborhoods. With CTA's vast network of buses, city residents have numerous bus routes to reach commuter trains.

Metra: The Northeast Illinois Railroad Corporation, the commuter rail division, (Metra), serves over 100 communities on 11 rail corridors at 233 rail stations. Annual ridership is more than 70 million passengers, with an average weekday of 270,000. The fleet consists of 129 diesel electric locomotives, 686 coaches and 209 multiple unit electric cars.

Metra is a combination of rail services formerly operated by seven separate railroads. In three cases, Metra contracts with the former operator to provide rail commuter service using Metra owned equipment over the railroads tracks. This is the situation on the Chicago & North Western (C&NW), the Burlington Northern (BN) and the Norfolk Southern (NS) railroads. In three cases, Metra has assumed the direct operation of trains formerly operated by the bankrupt Milwaukee Road and Rock Island railroads and the Illinois Central Gulf. In a seventh case, Metra contracts with the Northern Indiana Commuter Transportation District for operation of CSS & SB trains in Illinois. Metra's budgeted recovery ratio for 1991 was 55%.

Pace: The suburban bus division (Pace) serves 3,446 square miles in all six counties. Its 669 fixed route and 270 paratransit vehicles provide service on 230 routes. 123,000 riders use the service on an average weekday. The budgeted recovery ratio for 1991 was 34.5%.

Pace provides suburban bus service from CTA rapid transit terminals such as Evanston, Howard Street, River Road, Oak Park, Desplaines, Cicero and 95th Street. There are also Pace bus routes from many Metra suburban rail stations.

Fare Structure of CTA, Pace and Metra:

The adult fare structures of CTA, Pace, and Metra at the time this study was conducted are shown below:

CTA	Rail (All Hours)	$1.25
	Bus (Rush Hour)	$1.25
	Bus (Non-Rush)	$1.00
	Tokens (ten)	$9.00
	Transfers	$.25
	Weekday Pass	$45.00
	Everyday Pass	$60.00
Pace	Bus (Local)	$1.00
	Bus (Express)	$1.50
	Transfer to CTA	$.50
	Monthly Passport (Honored on CTA Monday-Friday)	$45.00

Metra

	CHICAGO TO ZONE: (in dollars)										
	A	B	C	D	E	F	G	H	I	J	K
One-way	1.75	1.75	2.55	2.95	3.30	3.70	4.10	4.50	4.85	5.25	5.50
Ten Ride	14.90	14.90	21.70	25.10	28.05	31.45	34.85	37.85	41.25	44.65	47.60
Weekly	14.00	14.00	20.40	23.60	26.40	29.60	32.80	35.60	38.80	42.00	44.80
Monthly	47.25	47.25	68.85	79.65	89.10	99.90	110.70	120.15	130.95	141.75	151.20

REVIEW OF CHICAGO AREA REVERSE COMMUTING

CTA: THE SUBURBAN CONNECTION

From its beginnings, Chicago's transit system has provided some form of reverse commuter service. The early routes of the CTA predescesor companies served factory locations in the outlying sections of its service area. Early CTA services carried reverse commuters to Evanston, Oak Park and Cicero. Interurban lines to Milwaukee, Aurora and Elgin performed similar services, especially to the lake shore suburbs north of Chicago. The North line of the C&NW shared in this traffic, which consisted mainly of domestics.

In more recent years, the CTA's Skokie Swift rail line opened up a new market serving offices and stores. The establishment of Nortran in the early 1970's and the subsequent expansion of bus service to the north and northwest provided for a further growth in reverse commuting from the Howard Street and Jefferson Park CTA rail terminals. Nortran lines were reconfigured in a grid network to extend beyond the CTA network. As the RTA acquired the other bus lines to the west and south, similar improvements were made. New reverse commuter patterns soon developed making extensive use of the extended CTA-suburban bus network. The establishment of a joint CTA-RTA suburban bus transfer in the late 1970's greatly aided new reverse commuters using the two bus systems.

The opening of the CTA O'Hare rail extension opened further new access to suburban jobs. Pace buses were rerouted to the River Road station and new express bus lines were established both here and to the Desplaines CTA rail station. Some of these later services provided an opportunity for privatization by smaller carriers.

The River Road bus terminal is certainly the best example of the RTA's coordinated network at work. CTA trains bring dozens of riders from the city who transfer to Pace buses to their suburban jobs. These same buses have just completed a trip bringing loop bound commuters to the CTA. Private vans of many hotels and office complexes also pick up workers at this location.

Thus, the role of the CTA in the reverse commuter market has emerged primarily to connect residents who are potential riders with the suburban transportation network. The CTA system is well suited for this with its extensive radial rail network and comprehensive grid bus network. Recent CTA purchases of many new buses and stepped up security efforts will further increase the CTA's viability in making the suburban connection. Finally, the CTA's hours of coverage and frequency of schedules can facilitate its serving as a basic access to the remaining RTA network, although present funding limitations may limit this role.

The CTA marketing and planning process should work toward improvements in connecting the city system with both Pace and Metra to serve present and future riders. This should include:

- Improved access to commuter rail stations
- Ensure adequacy of bus and rail connections to Pace including timed transfers
- Improved convenience of transfer from one system to another including possible route revisions.

PACE: A REVERSE COMMUTE SUCCESS STORY

"The continued growth of Chicago's suburbs has resulted in more offices, more employment, more people and more homes. Each phase of the cycle fuels the next with resulting traffic tie-ups, travel delays, air pollution, lost productivity, increased costs and growing frustration." So states a Pace market development mailing piece offering a solution to suburban travel problems.

Pace's success is based on its efforts in planning, market research, implementation, coordination and cooperation. Pace operations planning staff are constantly monitoring new developments to adjust routes, stops and schedules to meet the changing market. The RTA's new service initiatives program has provided an additional framework to identify and serve new markets.

Pace reverse commuting falls into 4 categories:

- Traditional service
- Reverse express service
- Reverse feeders
- Subscription services

The traditional services are line-haul routes serving both inbound and outbound riders. These routes are mainly a continuation of services provided by previous carriers and either form a radial network feeding the CTA rapid transit or are an extension of the bus grid network.

These routes normally provide a full span of service including frequent service in both directions and midday/evening service on a block schedule. They make frequent local stops and transfer to numerous cross routes in the suburban grid network.

The 200 series routes in the Evanston- Howard Street - Jefferson Park - River Road areas, best typify this type of service. Similar routes in the low 300 series serve the Oak Park and western areas from the Harlem or Desplaines CTA stations while other routes in the high 300 series serve southwest and south suburbs. Route 223 from River Road to Elk Grove typifies this type of service and carries overall over 2,300 daily passengers.

This type of route offers maximum trip flexibility as it extends the city grid with regular, frequent bus service. With the Pace/CTA transfer, it provides a low cost region wide local fare. However, because the service is local and the routes are long, greater running times and transfer waits extend total commute time.

Where the market has been identified, Pace has implemented reverse express services which originate at a CTA rapid transit station and travel non-stop for a relatively long distance on a high speed expressway or tollway. This type of route frequently has only peak period reverse direction service or limited midday service. Express surcharges apply on some routes.

Typical express routes include:

- 606 Northwest Limited: A major express route via Northwest Toll Road from the River Road rapid transit terminal to the northwest suburbs, Arlington Heights and Woodfield Mall in Schaumburg. Over 1,400 daily passengers use this route. This express route parallels local route 209.

- 616 The Chancellory Connection: A peak hour express route via Northwest Toll Road from the River Road terminal to the Chancellory development and the Itasca Metra station. The Chancellory development makes some payment to Pace for this service.

- 626 Skokie Valley (Lake-Cook) Limited: A peak hour express route via Edens Expressway from the Skokie Swift to Northbrook and Lincolnshire. Daily ridership exceeds 400.

These three routes are operated under contract by Kesshin Charter Service, Inc. and provide an opportunity for Pace to privatize some bus services.

Other express routes connecting to the CTA include:

- 737 West Suburban Limited: A peak hour express route from the Desplaines Rapid Transit terminal via I-290 and I-88 to Naperville, Allied Van Lines, Amoco and AT&T. It is operated by Robinson Coach Co.

- 747 DuPage Connection: An all-day express route from the Desplaines terminal via I-290 to Oak Brook and Wheaton. It is operated by Robinson Coach Co. Over 550 daily passengers use this route.

- 757 Northwest Connection: A peak hour express route from the Harlem and Desplaines terminals via I-290 to Elk Grove and Woodfield Mall operated by Valley Transit, Inc. (Hodgkins). Both this route and route 747 were developed under the RTA "New Initiatives" program.

Additional express routes serving outlying suburbs were established following studies on specific target markets. These include:

- 877 South Suburban - Oakbrook Limited: A peak hour express route between Harvey, Blue Island and Lombard via the Tri-state Toll Road operated by Robinson Coach Co.

- 888 Tri-state Flyer: A peak hour express route between Homewood, Oakbrook and Yorktown via the Tri-state Toll Road operated by Robinson Coach Co.

Overall, the express routes have proven very successful. Initially, approximately 50% of passengers on the express buses merely shifted from existing local routes. In time, the total combined ridership of both routes increased and the percentage diverted decreased.

Subscription bus services are designed to serve a specific employment center from a centralized loading point. They are subsidized by the employer or the employee to meet the needs of a specific group.

There is an excellent potential for subscription buses, especially as part of a transportation management program.

Pace developed its first subscription service. This is identified as Route 1001 and operates from a church park-and-ride lot in Naperville to Skokie serving the Sears Catalogue facility. The monthly rate is $60.00 which covers 60% of the operating cost. There is a waiting list for available space on this bus. The service is operated by Ryder and has been extended for another year.

A second route (not operated by Pace) operates from 4300 W. Peterson to Deerfield for Walgreen employees.

Route 737 - West Suburban Limited operating to Naperville began service as an Allied Van subscription bus but became a regular Pace express route.

Reverse feeders are services connecting Metra commuter rail stations to suburban job sites. Because of the heavy orientation of commuter services to the Loop, outbound train service in the morning (or inbound in the afternoon) is limited.

This type of route connects specific Metra trains to office development or industrial areas. A new example of this is Route 729 - Ameritech connecting a development at Hoffman Estates with Metra at Barrington. This is a 4-month trial service with half of the cost paid by Ameritech. Three trips are provided in each peak.

Route 703, while also bringing Loop bound commuters to the Villa Park Metra station, performs a reverse feeder function to the newly relocated Joint Commission on Health and to the Oakbrook shopping center.

Route 616 performs a limited reverse commute function from the Itasca Metra station to the Chancellory. This developer makes some contribution to Pace operating costs.

Other reverse feeders include Routes 605, 622, 645, 713, 728, 781 and 829. Average daily ridership ranges from 25 to 85.

This type of route must be coordinated with the developer and closely monitored. It is perhaps the most difficult type of service to develop. Initially, a van service operated by the developer might be the most practical way to begin.

Other Pace Marketing Attributes: The success of each of these new Pace services was measured against established goals of increasing ridership, increasing employment opportunities and reducing congestion. Pace has performance standards and service criteria that all routes must meet. These criteria are based on productivity (passengers per hour) and farebox recovery ratio. Pace services are further divided into four categories based on service and geographical locale. New express routes have generally exceeded the current Pace standards for their service capacity.

The newly established express routes serve major employment centers such as Woodfield or Lake-Cook Road. Surveys indicate that 97% of the riders use these routes for work trips. It is clear that this type of service has opened up job opportunities for city residents who otherwise could not or would not make these long trips. Express buses can reduce travel time by as much as 30 minutes. In surveys, nearly one half of the express bus riders indicated that the express service influenced their job decision.

Lastly, the Pace reverse commute service has assisted in reducing traffic congestion. 25% to 31% of the passengers using Routes 606, 626, 747 formerly drove or carpooled to work. Individuals will change modes if the option is attractive.

A special part of the Pace reverse commute effort has been the RTA's New Service Initiatives Program. The purpose of the program is to test innovative approaches in existing or emerging markets. Routes 747, 757, 877 and 888 were Pace demonstration projects funded under the New Initiatives Program.

Pace has been very effective with its market development program in encouraging private and public sector planning, coordination and cooperation. This program provides for roadway designs and bus stop zone development through a series of development guidelines and a Technical Review Assistance Program for new development.

Pace has also developed innovative marketing themes such as "Pace picks up where the "L" leaves off." This clearly informs new riders of the CTA-Pace connection.

Pace has been successful in working with employers on the following efforts:

- contacting firms that are relocating and working with them on their transportation needs
- encouraging employers to adjust their work schedules to accommodate transit schedules
- encouraging employers to sponsor van services to/from Metra stations
- including transit information in orientation packages
- promoting tax-free (currently $21) monthly transit incentive.

Pace is encouraged to continue working with employers to promote both reverse and intra-suburban commuting and to meet clean air requirements.

Pace is also encouraged to work with local transportation management plans to expand the role of van pools and subscription bus services to meet reverse commuting patterns not served in a cost effective manner by Metra or large buses. New services from Midway Airport and the new CTA Southwest Rapid Transit line may be best operated in this way.

In addition to these new initiatives, Pace is preparing additional service proposals designed to serve other suburban transit needs including additional express buses.

METRA: The Rail Connection

The Metra commuter rail system consists of 13 lines radiating from four major Chicago Loop stations. Eleven of these lines provide reverse commute service as follows:

STATION	LINES	REVERSE PEAK SERVICE
Madison Street	C&NW-North	X
	C&NW-Northwest	X
	C&NW-West	X
Union Station	Burlington Northern	X
	Milwaukee North	X
	Milwaukee West	X
	Heritage	
	Norfolk Southern	
La Salle Street	Rock Island	X
Randolph Street	Metra Electric (3 lines)	X
	Chicago South Shore & South Bend	X

Overall Metra service has been historically oriented to AM peak service to the Chicago Loop while reverse commute service has been limited by equipment availability. The most utilized inbound AM trains carry over 1,700 passengers, and the most utilized outbound AM train only 356 passengers.

Access to the Loop stations for reverse commute riders is largely by CTA bus and rail. Suburban distribution is either by walking, by being picked up in a car, or by Pace buses. The "Link-up" passport ticket offers Metra monthly ticket holders considerable savings for connecting CTA and Pace buses.

Reverse Commute Ridership Characteristics

Metra maintains comprehensive records of commuter rail ridership which give insight into the extent of and characteristics of the present reverse commute rail ridership in the Chicago region. Data is maintained for the following:

- Station ridership by time-of-day
- Reverse commute ridership by line and station
- Capacity utilization of trains

Time-of-day reports indicate that the distribution of total Metra ridership, including the very small reverse commute share, is as follows (Source: Metra Station Ridership by Time of Day):

AVERAGE TOTAL METRA SYSTEM WEEKDAY RIDERSHIP (FALL 1989)

Total inbound ridership:	131,754
Total outbound ridership:	130,536
Total daily ridership:	282,290
Outbound reverse (AM peak)	3,144
Inbound reverse (PM peak)	3,641
Inbound (AM peak)	117,477
Outbound (PM peak)	106,024
Inbound (Midday)	9,355
Outbound (Midday)	11,155
Inbound (Evening)	1,281
Outbound (Evening)	10,213
Inbound (Alighting in Loop)	121,924
Outbound (Boarding in Loop)	121,633
Total (To or from Loop)	243,557

Metra daily counts made by conductors show that average Metra system weekday reverse commute ridership has steadily increased in the past three years, as follows (excluding CSS & SB and Metra Electric South Chicago):

MONTH	OUTBOUND AM	INBOUND PM
January 1988	2,214	2,661
July 1988	2,240	2,733
January 1989	2,367	2,956
July 1989	2,410	3,589
January 1990	2,928	3,203
July 1990	2,836	4,026
January 1991	2,954	3,786
July 1991	3,096	3,897

Daily counts made by conductors also show that reverse commute ridership on the various Metra lines (excluding CSS & SB and Metra Electric South Chicago) for July 1991 is as follows:

LINE	OUTBOUND AM	INBOUND PM
BN	413	573
CNW-N	986	885
CNW-NW	492	713
CNW-W	342	456
METRA EL/ML	189	339
METRA EL/BI	22	71
MILW-N	358	405
MILW-W	236	300
RI	58	155
TOTAL	3,096	3,897

Outbound reverse commute (AM peak) boardings for fall 1989 (based on daily counts made by conductors) are mainly at the Loop stations, as follows:

LINE/STATION	AM PEAK BOARDINGS
BN/UNION STATION	196
CNW-N/MADISON	444
CNW-NW/MADISON	165
CNW/NW/MADISON	180
METRA ELECTRIC/R & VB	189
MILW-N/UNION STATION	109
MILW-W/UNION STATION	74
RI/LASALLE	35
TOTAL LOOP BOARDINGS	1,466

The remainder of the AM peak reverse commute riders board at other stations along the entire line, including riders from outside the Loop, from adjacent cities such as Evanston and Oak Park, and from other suburban communities.

In the fall 1989 inner-city AM peak boardings were reported to be as follows (Source: Metra Station Ridership by Time of Day) in the following table:

LINE/STATIONS	AM PEAK BOARDINGS
BN/HALSTED & WESTERN	49
CNW-N/CLYBOURN, RAVENWOOD & ROGERS PARK	365
CNW-N/EVANSTON (3 STA.)	115
CNW-NW/CLYBOURN, IRVING PARK & JEFFERSON PARK	156
CNW-W/KEDZIE	9
CNW-W/OAK PARK	45
MILW-N/WESTERN	28
MILW-W/WESTERN	14
SUBTOTAL:	781

Overall, Metra reverse commute ridership (excluding CSS & SB and Metra Electric South Chicago) for fall 1989 had the following characteristics:

- Small share of total rail ridership:

  3,041 outbound AM vs. 109,464 inbound AM

- Slightly greater inbound PM ridership:

  3,442 inbound PM vs. 3,041 outbound AM (inbound PM includes riders to Loop for evening activities)

- Average weekday reverse commute ridership (after excluding CSS & SB and Metra Electric South Chicago) is growing steadily (Source: Metra Daily Counts by Conductors):

  Outbound AM: 2,214 (Jan. '88) vs. 3,096 (July '91)

  Inbound PM: 2,661 (Jan '88) vs. 3,897 (July '91)

- The ranking of reverse commute lines (based on outbound AM peak ridership for July 1991 and excluding CSS & SB and Metra Electric South Chicago) is:

CNW-N	986
CNW-NW	492
BN	413
MILW-N	358
CNW-W	342
METRA-EL	211
MILW-W	236
RI	58

- Distribution of AM reverse riders by station has the following characteristics (Source: Station Ridership by Time of Day - Fall 1989):
  - Metra Loop rail stations board the most reverse commute riders:

    1,432 outbound AM of 3,144 total AM reverse commute riders
  - CNW Clybourn (CNW-N and CNW-W), Ravenswood (CNW-NW) Rogers Park (CNW-N), Jefferson Park (CNW-W) stations have the highest inner-city ridership:

    521 outbound AM reverse riders

- CNW Evanston (3 stations) has the highest ridership from suburban cities contiguous to the city of Chicago.

- Other suburban stations board significant numbers of reverse commute passengers:

  931 reverse intra-suburban riders

- Most reverse rail commute riders are concentrated on a few trains at the start of the AM peak:

LINE	DEPART CHICAGO	AM PEAK BOARDINGS
BN	6:20 AM	129
CNW-N	6:35 AM	234
CNW-N	7:25 AM	356
CNW-NW	6:30 AM	95
CNW-W	6:51 AM	176
METRA-EL	6:35 AM	56
MILW-N	6:35 AM	103
MILW-W	6:25 AM	71
(SUBTOTAL - 8 TRAINS)		1,220

1,220 outbound AM of 3,144 total AM reverse commute riders are concentrated on eight trains.

In summary, Metra reverse commute ridership is concentrated on a few early AM trains, largely originates at the Loop stations, has significant intra-suburban reverse ridership and is heaviest on the CNW-N line.

Milwaukee West Line Feasibility Study

Metra has continuously worked to develop new market areas. Weekend recreational riding has continued to grow assisted by family fares, ten-ride group tickets and new CTA bus service to the lake front museums. Special service has been provided to Arlington International Racecourse. Midday and evening riding exceeds 32,000 passengers out of a total daily ridership of 262,290.

To further develop reverse commute ridership, Metra has participated in the RTA's reverse commute study team and has included reverse commuting in their overall marketing and planning strategies. In October, 1989, Metra contracted with the Center for Neighborhood Technology (CNT) to carry out a feasibility study regarding reverse commuting on Metra's Milwaukee Division/West Line. The object of this study was to determine if a potential market existed that warranted at least a pilot project to increase reverse commute service.

The selection of this line was based on previous research that identified this corridor as having considerable manufacturing growth potential and having a potentially good match for the labor force in the west line neighborhoods. After a complete analysis, the study recommended:

- Rail schedule modifications (earlier trains)
- A broadly based, aggressive marketing program
- Culturally appropriate marketing and public relations
- In-city station visibility and access
- Price sensitivity evaluation
- City and state participation
- Limited private link-up service
- Quarterly evaluation

These goals would be developed through an RTA New Initiatives Program reverse commuting demonstration project, beginning in summer 1990 and ending in 1992. The demonstration involves an additional morning reverse train and PM peak schedule adjustments is now underway. Initial ridership results have been low due to the recession and resultant decrease in employment in the targeted areas.

Future Planning and Marketing Efforts

The on-board vehicle reverse commute survey and the focus groups conducted as part of this study provide Metra with additional market research data that can be used when planning added marketing and reverse commute improvements. The following points should be kept in mind:

- Close cooperation with Pace and CTA will improve bus connections.

- Working with major employers, Metra will have an opportunity to expand various reverse commute strategies. These include participation in early planning for major new developments and company relocations, employee and job applicant information programs and participation in the RTA Transit Check Program.

- Working with major suburban employers will involve both reverse and intra-suburban commuters.

- The new Clean Air Act will stimulate employer interest in increased transit use.

- As the economy recovers, there will be an opportunity to target other, non-blue collar, job opportunities and to promote the benefits of reverse commuting on Metra. The Milwaukee-West Line demonstration project, in conjunction with market research, will provide guidance in these efforts.

The percentage of occupied seats on existing reverse commute trains is low and there is capacity to add passengers to existing trains at little or no additional cost. If earlier schedules require additional equipment, a goal of meeting Metra's fare box recovery standard of 55% should be set.

REVIEW OF REVERSE COMMUTING ELSEWHERE

In reviewing the performance of reverse commute services in the Chicago area, it is important to understand the extent of such operations elsewhere in North America. Chicago with a radial commuter rail network and a strong center city transit system has a transportation layout generally similar to Philadelphia and Boston. The New York metropolitan area by comparison is a large megalopolis spread over three states with both natural and political boundaries dividing both the transit network and the overall development patterns. Baltimore and Washington have had extensive suburban office growth served by their new metro systems. The San Francisco Bay area is also divided by both natural and political boundaries with the BART system serving as a catalyst for intra-regional traffic. Los Angeles has a vast multi-municipality transit network formerly dependent on local buses requiring long travel times and multiple transfers; it is now creating a combined heavy rail, light rail and commuter rail system. Toronto, working through a metro form of government has extended the city subway, bus and light rail network as development occurred. This extension has been supported by an extensive suburban commuter rail and bus network provided by the provincial government.

In general, reverse commuting has worked best where either an existing network was in place as in Philadelphia, or where an expanded Metro transit system followed development beyond the city line as in Toronto. The similarities to Chicago are evident. The CTA services to Evanston and Skokie were in place and the former Nortran, now Pace, services extended the full service transit network beyond the CTA service area.

Philadelphia: A System in Place

The SEPTA Philadelphia experience includes a variety of reverse commute strategies.

- The radial commuter rail lines have long been electrified and under SEPTA were connected by a center city tunnel. Frequent reverse commute trains during early morning hours are available because of the block type of scheduling used. Service is especially well timed on the former Pennsylvania and Reading Main Lines.

- The local suburban bus and light rail network formerly operated by Red Arrow has been in place for decades, serving initially West Suburban to Center City commuters. A good example of this is the Norristown electrified high-speed line from the 69th Street subway-elevated station. This line now carries almost a 50 percent reverse commute split because of the extensive development near King of Prussia and Fort Washington. An extension of this line is now being considered to form a cross-county link to serve other new development areas and to connect with radial commuter rail lines in a manner similar to Metra's proposed EJ&E intra-suburban rail route.

- To the north, SEPTA (ex - PTC) buses have long served Bucks County and Northeast Philadelphia. Service has been increased to match development in areas such as Oxford Valley. Initially, much of this growth was within the large and formerly under-developed area of Northeast Philadelphia. An extensive bus and trackless trolley network radiates from the Bridge-Pratt terminal of the Frankford elevated to service factories, warehouses, shopping centers and a large Internal Revenue Service regional office.

- Where service was not previously provided, SEPTA has established new express routes (similar to Pace) from the subway-elevated to areas such as Fort Washington. These are peak hours routes which circulate into new developments.

- The SEPTA fare structure is a regional one which includes city to suburban transfers similar to the CTA/Pace system and commuter rail passes which can be used on connecting buses.

- On the newly extended commuter rail service to Wilmington, additional early morning reverse commute trains have been added.

- SEPTA has created new regional transportation centers such as at Norristown and has expanded and rehabilitated old ones such as 69th Street to integrate rail and bus operations.

In summary, the Philadelphia reverse commute market has benefitted from having a commuter rail network in place with city transit span of service characteristics, an extensive suburban bus and light rail system connecting to the subway-elevated, and an intra-regional fare structure including subway-to-bus transfers. Where new development has taken place beyond the existing network, rush hour express bus lines have been created.

Toronto: A Metro Regional System

Few cities in North America have enjoyed the growth of metropolitan Toronto. The Toronto transit system's role in facilitating and servicing that growth has been widely acknowledged. Bus and subway lines have been extended to and beyond the Metro boundaries, providing the highest level of suburban service possible. Reverse commuting to new job sites has been facilitated by a single fare zone concept initiated by Metro. Only a small number of bus routes require an extra fare beyond Metro. This extension of city service was made possible by Metro region funding and an unusually high use of public transit throughout the Metro service area. Unfortunately, ridership characteristics and available funding do not allow for the establishment of such a frequent service network in the overall Chicago area.

More appropriate is the experience of the GO train commuter rail and bus system. This system is funded by the government of Ontario. The original Oakville-Toronto Union Station-Pickering commuter line was established with a block type schedule with early morning and weekend service to facilitate access to suburban job sites. The Toronto Union Station is directly served by the Toronto subway, avoiding cross-town connecting trips. More recent commuter services from Toronto Union Station to Milton, Georgetown, Barrie, Richmond Hill and Stouffville have been limited to peak direction rail service, with reverse commute service available from the TTC subway by full span GO bus schedules. Again a regional inter-agency fare structure provides for full use of the total combined system.

The Toronto approach has been one of extending the city transit system with a single flat fare zone, this has been made possible by a Metro form of government and funding, with a new commuter rail and bus system providing full span services beyond the Metro limits.

The New York Metropolitan Area

Like Philadelphia, New York has long had an established network in place. But, due to historical and government restraints, the system continues to consist of a number of separate entities only now beginning to develop inter-agency fares and operating strategies.

The Metropolitan Transportation Authority (MTA) includes the New York City Transit Authority (NYCTA) bus and subway system, the Long Island Rail Road, the Metro-North Commuter Railroad including operations into Connecticut for the Connecticut Department of Transportation, and the Nassau County bus system. County bus systems operate within Westchester and Suffolk Counties and there is an extensive private express and local bus operation in Queens and The Bronx.

Interstate services to New Jersey are provided by the Port Authority's PATH rapid transit system and the New Jersey Transit (NJT) extensive bus and rail network. In addition, there are many private buses operating from the Port Authority's Manhattan bus terminal.

There is only limited fare inter-changibility. PATH and NJT have implemented an initial program for joint purchase of NJT monthly passes and a new PATH magnetic ticket. There is some use of a "Uniticket" on Metro-North that provides connecting bus service for an additional $22 to $26. But generally speaking, each carrier requires a separate fare and free transfers are not available between the New York subway system and the NYCTA bus system.

Where the network is in place, there is extensive opportunity for reverse commute. The PATH rapid transit connects Manhattan to extensive job growth in Jersey City and Newark. The NJT full span of service Northeast Corridor (NEC) electrified service connects Penn Station New York with Newark, New Brunswick, Princeton and Trenton. A major office development is located at Metro Park on the NEC. Other NJ Transit rail lines offer only limited early morning reverse commute trains or are restricted to peak direction trains with no opportunity for reverse commuting. However, private bus lines generally provide such service to these areas.

Park-And-Ride bus services between Manhattan and Secaucus via the Lincoln Tunnel provide some reverse service to this growth area. The major developer here (Hartz Industries) provides special reverse commute bus or van services not only from Manhattan but from Brooklyn and the other boroughs.

The Long Island Rail Road (LIRR) provides extensive electrified rail service from Penn Station, Brooklyn and Jamaica, generally with a block type of schedule. Recently the LIRR in a year long experiment had added three morning reverse trains on the Ronkonkoma and Babylon branches, one afternoon train from Ronkonkoma, and added stops on other trains. In order to provide equipment for this service, two eastbound morning trains have been combined and an afternoon train to Port Jefferson canceled. Special rail/bus timetables have been issued for service to Lake Success, Plainview, Melville, Roosevelt Field, and Huntington.

The NYCTA has added bus service to Kennedy Airport to serve reverse commuter needs from Jamaica. Also, Nassau County and Westchester County bus systems connect at several places to the subway. However, no free transfer or through fare is available.

The above services are an overview of America's largest transit networks. A specific reverse commute case study that is applicable to the Chicago area is the Metro-North commuter railroad.

Metro-North: A Reverse Commute Analysis: The Metro-North Commuter Railroad, in cooperation with the Connecticut Department of Transportation (CDOT), has over the years developed a comprehensive market research program leading to the formation of a strong marketing plan. This effort was directed to attracting new customers from specific market segments that are both cost effective and contribute to Metro-North's overall strategic goals.

Marketing identified the following areas for increased emphasis:

- Mid-day
- Evening: for entertainment
- Weekends: for recreation and entertainment
- Intra-suburban
- Reverse commute

In particular, these programs promoted off-peak or off-direction service when capacity and train crews were available to help improve the efficiency of the railroad.

The reverse commute effort focused on location of suburban jobs, improved train service, rider attitudes and increasing awareness of Metro-North service and fares.

The Metro-North system consists mainly of three major radial corridors operating north from Manhattan's Grand Central Station through the Bronx to Westchester County and then extending into the adjacent counties and Connecticut (Connecticut operations are in conjunction with CDOT).

The three corridors are:

- Hudson: To Yonkers, Tarrytown and Poughkeepsie
- Harlem: To White Plains and Brewster North
- New Haven: To New Rochelle, Rye, Stanford and New Haven, with branches to Dansbury, Waterbury and New Caanan. Also, connection at New Haven with CONNDOT commuter service to Old Saybrook.

Service is provided by electric MU cars, with diesel operation on the outer ends. Metro-North also provides a separate west-of-Hudson service through NJ Transit from Hoboken, NJ. Most of this network provides several opportunities for reverse commute service. These routes begin at Grand Central Station with good access to the New York subway system, stop at 125 Street in Harlem, and pass through the Bronx and the older cities in Lower Westchester County such as Mount Vernon and Yonkers. They serve fast growing office, commercial and retail centers such as White Plains, Tarrytown, Rye and Stanford.

In White Plains, a new station and transportation center is both within walking distance of many downtown jobs and adjacent to connecting Westchester DOT buses. In Stanford, a new station is also within walking distance of downtown jobs. Because of the block type of zone scheduling used by Metro-North, trains operate express from Manhattan to White Plains. The lines through the Bronx and Lower Westchester have access by both walk-on and bus transfer to large city residential areas.

To increase the attractiveness to reverse commuters of this network which was basically in place, Metro-North has fine-tuned both the schedule and the operation by:

- Adding early a.m. trains from Grand Central
- Adding stops on outbound express trains:
  - At Fordham Road, the Bronx to pick up passengers
  - At Greenwich to discharge passengers

Most recently, working with CDOT, a new early morning outbound train has been added leaving Stanford at 5:42 a.m. to New Haven.

Metro-North ridership statistics show the following trends in average weekday reverse commute ridership boarding outbound at Grand Central Station between 6 and 9 a.m.

LINE	1984	1987	1990	1991
Hudson	307	367	359	372
Harlem	731	965	1,006	987
New Haven	964	1,120	1,295	1,310
TOTAL	2,002	2,452	2,660	2,669

Discussions with staff indicate that the recession has had considerable impact on reverse commuting due to layoffs and a labor surplus in the suburbs. A revival of the economy will once again create a need for city resident labor in the suburbs.

Other interesting characteristics of Metro-North ridership include:

- P.M. inbound (4-7 p.m.) exceeds a.m. outbound by almost double because of riders coming to Manhattan for entertainment, totaling over 4,000.
- Intermediate intra-suburban also far exceeds a.m. reverse commuters from stations other than Grand Central

The Metro-North experience points out that even with a basic network in place, continuous adjustment to schedules and stops is necessary to serve an ever changing market. Similarly, the railroad must make train and fare information readily available on an ongoing basis. Even then, the reverse commute market is relatively small when measured against Metro-North's overall 200,000 daily ridership.

The San Francisco Bay Area

This region, like New York, is divided by water barriers and political boundaries. Where once a large network of ferry boats connecting to electric trains provided service to and from San Francisco, the construction of the Golden Gate and Bay Bridges substituted a cross bay bus service. Only one rail commuter line, the S.P. to San Mateo and Santa Clara County remained.

The opening of the Bay Area Rapid Transit (BART) system created an inter-regional system which opened up reverse commute opportunities from both San Francisco and county bus operations. In several cases, large developers such as the King Ranch, have established free bus service to a BART station. And, there are also many van type services.

The single commuter rail line (former S.P., now Cal Train) to the south will soon be further upgraded as a result of a takeover by the three counties through a joint powers agreement. Cal Train has added reverse direction trains to better serve the reverse market.

Fare integration in the Bay area is fully accomplished by a system of inter-agency passes. A public information and signing program stressing "The Bay Area Interconnection" has worked to expand the use of the network.

REVERSE COMMUTING STRATEGIES

As stated previously, there are many geographical, political, organizational and funding restraints which have resulted in different strategies in other cities to handle reverse commuting. No one solution can apply to every city.

However, certain elements of the Chicago reverse commuting strategy are also being advanced in other cities and indicate the commonality of the problem. These include:

- Region-wide fare structures to include provision for commuter rail passes on local buses and use of transfers between the city transit system and suburban buses.

- Express bus routes between city rapid transit stations and suburban job sites.

- Demonstration train service improvements to include added reverse peak trains and in-city station stops.

- Local distributor bus routes from commuter train stations to new developments.

- Extension of the city grid bus system to close-in suburbs where two-way traffic exists and the service is economically justified within guidelines.

- Market research programs to determine the reverse commute market.

- Specific advertising and public information programs.

- Programs to build employer participation and understanding of the need for reverse transit.

- Expansion of the tax-free $21.00 program

The various programs now being tested will help all major cities further determine the extent of the market and possible marketing strategies to serve it.

THE FOCUS GROUPS

TOTAL RESEARCH CORPORATION

Reverse commuters are in many ways a heterogeneous population, differing among themselves in their socio-economic status, reasons for being a reverse commuter, and attitudes toward public transit vs. cars for commuting. This heterogeneity applies to the very small population of Metra reverse commuters (see demographic characteristics reported in the section on the on-board survey) and Pace users as well as the larger population of those who commute by car. Their heterogeneity must be taken into account in developing any marketing strategy directed at reverse commuters. It would be a mistake to assume that because reverse commuters are a relatively small population that their needs can be taken care of by a single, simple approach. Participants in the focus groups were recruited to reflect this heterogeneity.

WHY ARE SOME PEOPLE REVERSE COMMUTERS?

One characteristic that reverse commuters have in common is that they are an unusual population in that commuting to work from the city to the suburbs is unusual. (This is the case even though all indications are that reverse commuting is more frequent than it used to be.) It is therefore important to understand what accounts for this "unusualness."

The focus group participants can be categorized into voluntary and involuntary reverse commuters. Voluntary reverse commuters are those who looked for a job in the suburbs while they were living in the city; they also include an apparent handful who initially lived and worked in the suburbs and then moved to the city without changing jobs. Involuntary reverse commuters had been living and working in the city and followed their job when their employers relocated to the suburbs.

Three kinds of influences explain why some people become reverse commuters:

1. Job seeking
2. Economics of housing
3. Life style differences

The interaction of these three types of influences explains why an individual becomes a reverse commuter.

Job seeking:

Involuntary reverse commuters would prefer to work in the city and would get a job there if they felt they would not lose anything by doing so. For example, working for a company that relocates from the city to the suburbs led a number of the participants to become involuntary reverse commuters. Two reasons explain why involuntary reverse commuters follow their jobs to the suburbs. These two reasons are not mutually exclusive. They may, in fact, reinforce each other in specific cases.

First, particularly among low and moderate income participants is the tightness of the job market. Unable to find another job in the city, or an equally good job, or unwilling to risk being unable to find one, a number of participants simply followed their employer to the suburbs. However, for reasons described below, they did not move to the suburbs.

Stake in one's job, such as vested fringe benefits and career opportunities, is a second reason for following the job when it moves to the suburbs. This reason seems to be important among upper-income reverse commuters as well as among those with moderate and low incomes.

Voluntary reverse commuters differ in that they believe that job opportunities for them are better in the suburbs than in the city and actively seek work in the suburbs. One welder said he felt that welding jobs do not pay as well in the city. A school teacher wanted to work in a less trying environment. Others said that in going through want ads they found the best jobs were in the suburbs.

While some of the voluntary reverse commuters in the focus groups use public transit to get to work, the more usual pattern among the participants was for them to commute by car. A plausible influence is that not owning a car inhibits job hunting in the suburbs among city residents.

Economics of housing:

A number of reverse commuters, both voluntary and involuntary, said they could not afford to move to the suburbs. Some owned their homes with mortgages completely or largely paid and felt they could not hope to meet housing costs in the suburbs. Non-home owners felt even more strongly that they simply could not afford suburban housing. The added cost of commuting apparently would not cancel out anticipated increase in housing costs. If it were not for cost, some reverse commuters would prefer to live in the suburbs.

Life style:

Two kinds of life style reasons were given for preferring to live in the city even if one works in the suburbs. One has to do with familial, neighborhood and community ties. For example, some participants did not want to move away from their families or from neighborhoods where they had lived for as long as twenty years. This type of reason tended to be given by lower and middle-income participants. Related to this are racial and ethnic factors. Some minority participants indicated, sometimes indirectly, they anticipate suburban animosity.

The second life style reason has to do with the cultural and entertainment advantages of living in the city -- parks, museums, spectator sports, and a generally more exciting and stimulating environment. This type of reason tended to be given by upper-income people and the young.

Wanting to live in the city for life style reasons even though one works in the suburbs does not necessarily mean that one takes full advantage of city life. One older executive who travels up to four hours a day roundtrip commented that he leaves so early in the morning and gets home so late at night that he does not have time to do the things he wants. However, the ambiance of city life remains a strong attraction for him. Other, younger participants said that at their stage of life they wanted to live in the city but that as they got older and married they might want to move to the suburbs.

ATTITUDES TOWARD PUBLIC TRANSIT VS. CARS FOR COMMUTING

Reverse commuters differ sharply in their attitudes regarding commuting by car or by public transit. Some have a very strong preference for commuting by car while others have just as strong a preference for using public transit. However, the favorableness of attitude toward each mode of travel cannot be inferred from the mode now used.

Some participants who would prefer to commute by car use public transit because they have no choice. They do not own a car or only have one and that is used by another member of the family. Other participants, such as a salesman and a nurse, need a car for the daily travel that is part of their work. Others who might prefer to use public transit nonetheless drive because they feel that the trip by public transit would take far too long.

How one commutes, therefore, is the outcome of the combined effects of attitude and circumstance. It may be possible to convert some car users to public transit by changing circumstances without changing attitudes. Conversely, changing the attitudes of car users may not be sufficient to convert them if circumstances are unfavorable. Nonetheless, judging from the attitudes that were expressed by current car commuters in the focus groups, it seems likely that only the most restrictive of circumstances would induce many of them to use public transit. The reverse does not appear to be likely for current public transit users; a change in circumstances might lead them to commute by car without much resistance.

Car people:

Car people are those who have a strong preference for driving regardless of circumstances. Driving is a pleasurable experience for them: Cars are for them physically comfortable, being in a car gives them a sense of privacy, driving a car gives them a sense of control and of freedom of the road and helps them unwind. Furthermore, car people maintain that commuting by car provides door-to-door convenience, flexibility in time schedules, dependability, opportunities to run errands and take care of chores, and shortens the length of trips.

In contrast, they maintain that public transit is physically uncomfortable, intrudes on their privacy, and puts them in contact with distasteful and threatening people, Furthermore, they are critical of unsatisfactory equipment and facilities, inconvenient schedules and routes, and unacceptably long trip lengths.

When faced with the hypothetical possibility of not being able to use their car to commute to work, some talked in terms of car pooling (despite the fact that in another context they expressed a dislike for car pooling as an invasion of privacy), using company cars, renting cars, and other alternatives to using public transit. Commuting by train or bus is a last resort for them.

Transit people:

Transit people like using public facilities but they are not necessarily anti-car. Public transit is a familiar, non-stressful way of travelling for them. They envelope themselves in a private world even though they are on a public conveyance and thereby protect their sense of privacy. Very importantly, they can relax, read, or sleep while going to and from work instead of having to cope with traffic.

Nonetheless, public transit people do not necessarily find cars unacceptable as a way of commuting. Some do express a principled opposition to cars on ecological grounds or report that driving is a tense, high-stress experience for them. Nonetheless, when the opportunity for a lift from a co-worker comes up, they will accept it. And if for some reason their current mode of commuting by public transit were not available, they would not necessarily object to commuting by car if one were available to them.

Cars vs. public transit as normative standards:

To a considerable degree, public transit and car people talk about the same attributes -- convenience, dependability, physical comfort, relaxation and unwinding -- when talking about what is important to them when deciding what mode of commuting to use. The contrast in their decisions results from what standard they use when thinking about these attributes.

Participants who can be classified as public transit people by and large have had satisfactory experience with CTA. They are used to a system with frequent and dependable service over a route structure that takes them close to wherever they want to go. Whatever drawbacks they think the system may have (and they do have complaints), they are used to the idea of using it for their local travel needs. For example, they took public transit to get to the focus group facility.

The "natural" inclination of these participants is to seek a way to use public transit to get to work. They are critical of Metra and Pace for not providing the level of service they have come to expect based on their experience with CTA. They are critical of the suburbs for being oriented toward cars and for not providing public transit. Nonetheless, they may use the kind of "service" that cars provide as a standard for judging public transit with respect to such matters as length of commuting trip and personal convenience. If public transit falls short of that standard, they may switch to cars.

In contrast, car people start off by using car performance as the standard for deciding what travel mode to use for commuting. This may result from past dissatisfaction with CTA, lack of familiarity with Metra and Pace, or an assumption that in the suburbs there is no alternative to traveling by car. In any event, in their opinion public transit consistently falls short of cars with respect to such key factors as speed of trip, door-to-door service, flexibility, and frequency. Using the car is the "natural" choice for them. Thus, even though they could have used public transit to get to the focus group facility, some drove, even at the risk of a parking ticket.

PERCEIVED ADEQUACY OF PUBLIC TRANSIT SERVICES

The key criteria used by the participants in judging the adequacy of Metra and Pace service were scheduling and frequency of service, adequacy of routes, length of trip, and transferring. Physical equipment was also mentioned while employee quality was an important factor to some of the participants.

Scheduling and frequency of service:

A common complaint of current users of Metra and Pace was the poor fit of service to their work schedules. Concern about public transit scheduling and frequency was also mentioned by those who commute by cars. Long waits if one misses a bus or train were a major concern. Missing a bus means being late for work in the morning, while in the evening there is the real danger of being stranded if one misses the last bus or train.

These concerns are exacerbated by the fact that there is often no place to wait for the next bus or train. One has to wait in the open and in the dark.

A number of public transit users said that service is worse in the afternoon than in the morning. This creates a special problem if they have to work late.

Route adequacy:

Pace routes were the target of considerable criticism. They were described as not being close to work sites or as so circuitous that trips take much longer than need be the case.

Many of the participants do not work within walking distance of Metra stations and must find some other means of reaching their final destination. (What constitutes "walking distance" is variable. Some participants walk a mile or more between the Metra station and their place of work.) Pace service was consistently described as inadequate for getting from Metra stations to work.

A criticism made by Pace and Metra users is the absence of sidewalks when walking from a station or bus stop to place of work. One participant said he cut across an open field and a cemetery. All complained about personal safety, slush, and mud when walking on the shoulder of roads.

Length of trip:

Participants who commute by public transit tend to have longer commutes than those who drive. One reason for this is the nature of the route structure. One driver reported that it would take her up to two hours to get to work by public transit because she would first have to travel toward the center of the city and then transfer to another line to go back out to the suburbs. Her drive takes about 25 minutes. Another car driver said that after his firm moved to the suburbs his secretary (who does not own a car) tried using public transit but that it took so long that she finally quit the job.

Express service, on both Metra and Pace, and rerouting of Pace buses, were both endorsed as corrective measures.

Public transit people accepted the possibility that travel by Pace and/or Metra might take longer than driving. The general feeling was that lengthening travel time by up to twenty minutes is acceptable. Anything longer than that would not be acceptable.

Transfers:

Using public transit is more acceptable if it is not necessary to transfer. The greater the number of transfers that must be made, the more resistance there is to using public transit. There are a number of reasons why transferring is a deterrent to using public transit:

Transfers lengthen the trip, transfer points are often inconvenient so that one has to walk a distance, there are no shelters so that (especially in bad weather) one is physically uncomfortable, many transfer points are in unsafe neighborhoods, and transfers add to the cost of commuting.

Physical equipment:

Evaluations of physical equipment varied considerably on a line-by-line basis. In general, Metra equipment was deemed satisfactory, though there was some criticism regarding cleanliness and food litter. Comments regarding Pace equipment depended very much on the particular route in question. Pace routes that have newer buses were praised (but some CTA bus routes were sharply criticized for old, uncomfortable equipment.)

Adequacy of heating and air conditioning was an important concern that came up in the discussions.

Employees:

There was little discussion concerning the satisfactoriness of employee service and their attitudes. Generally speaking, Metra employees were described as pleasant and helpful. Pace bus drivers were generally described as courteous and helpful, especially in contrast to CTA bus drivers. The latter were described as rude and unhelpful (though some participants ascribed this to the strains of driving in the city rather than to the employees themselves).

COSTS

Both users and nonusers of public transit displayed considerable ignorance and/or misinformation about the costs of public transit compared with commuting by car. Car drivers varied considerably in how they estimated their costs. Some thought only in terms of cash expenditures for gas, oil and maintenance while others tried (not always successfully) to take into account depreciation, replacement, insurance and the like. Public transit users knew what they were paying, but could not always estimate what the cost of commuting by car would be.

However, both types of reverse commuters tended to feel that they were getting good value for the dollar. Public transit users tended to think that public transit was less expensive than driving by car and that they were getting what they were paying for. Some car drivers felt that driving

cost them less than public transit. Those who felt driving was more costly nonetheless felt the differential was worth it.

Public transit users, as well as non-users, were often not well-informed as to current fares. Some had no knowledge of the various reduced fare passes, though a few informed participants took the opportunity to "educate" the others. For example, one man described how he used ten-trip passes for times (vacations, monthly pass left in other suit, etc.) when they were useful.

There was limited awareness of the Link-Up Pass and how it can be used.

There was considerable criticism of the surcharge on Pace express bus routes from monthly pass users.

In summary, cost is a sensitive issue. On one hand increases can lead to dissatisfaction among current users; but, on the other hand it seems likely that major reductions would have to be made before car drivers would feel that it would be worth changing to public transit.

ROLE OF EMPLOYERS

Participants reported that most employers pay little or no attention to the needs of employees who use public transit. Whereas parking facilities are provided at no cost to car drivers, marked bus stops with paved areas and shelters are not provided. Furthermore, employers are reportedly unaware of or uninterested in promoting the use of public transit, not even by making

information available, let alone by participating in programs in which employers pay part of commuting costs. Finally, working hours are set without any consideration of public transit schedules.

INFORMATION SEEKING

Some "transit-wise" reverse commuters made a specific effort to find a way to get to work using public transit. For example, some called the RTA Travel Information Center and were complimentary regarding the service they received. Printed schedules and brochures available at the major rail stations in downtown Chicago were also mentioned, but their unavailability at other locations was noted by some public transit users. As noted above, employers were not mentioned as a source of information. On the other hand, some public transit users learned about available services through word-of-mouth from co-workers.

When asked what would be good ways of informing reverse commuters about available services, participants mentioned advertising, especially on television. However, this is an "obvious" answer and further research would be needed to determine how advertising could be used effectively for this purpose.

CHARACTERISTICS AND ATTITUDES OF METRA REVERSE COMMUTERS

TOTAL RESEARCH CORPORATION

SYSTEM CHARACTERISTICS

The eight commuter rail lines included in the on-board survey differ from each other with respect to their originating Chicago terminal, the distance their outer terminals are from their originating terminals, number of fare zones, and ridership (total and reverse commuters). Also, one of the lines is electric powered while the others are diesel powered. The following table summarizes key service characteristics of the eight lines that were provided by RTA.

	Chicago Terminal Stations				Mode					
LINE	Madison Street	Union Station	Randolph Street	LaSalle Street	Diesel	Electric	Outer Terminal	Miles From Chicago	Fare Zones From Chicago	1990 Annual Passengers*
C&NW N	X				X		Kenosha	52	10	6.5
C&NW NW	X				X		Harvard	63	11	9.8
C&NW W	X				X		Geneva	35	7	7.4
MIL. DIST N		X			X		Fox Lake	50	9	4.4
MIL. DIST W		X			X		Elgin	40	7	5.2
BN		X			X		Aurora	38	8	12.9
Metra Electric			X			X	Univ. Park	32	7	10.5
Rock Isl. Dist.				X	X		Joliet	47	8	8.1

* In millions. Provided by RTA.

INCIDENCE OF METRA REVERSE COMMUTERS

Reverse commuting was defined narrowly for this study to include only riders who:

(a) boarded a reverse direction Metra train during the time period 5:00am-9:15am at a station within the City of Chicago, Evanston, Oak Park, or Cicero and who also:

(b) deboarded at a station beyond the City of Chicago, Evanston, Oak Park or Cicero.

Excluded from the category "reverse commuter" as used in the on-board survey, therefore, are:

(a) those who both boarded and deboarded their train at stations within the City of Chicago, Evanston, Oak Park or Cicero.

(b) those who both boarded and deboarded their train at stations beyond the City of Chicago, Evanston, Oak Park or Cicero.

For example, city residents who commute by Metra from the Loop to a site inside the city limits were not surveyed. Similarly, suburbanites who boarded beyond Evanston, Oak Park and Cicero and who traveled to a site even further from the city than their residence were not surveyed. Consequently, an unanticipated number of riders traveling on reverse direction trains during morning peak hours were not included in the on-board survey.

A comparison of total Metra reverse direction peak morning ridership with the number of reverse commute riders identified in this survey indicates that a substantial portion of total reverse ridership consists of the two excluded categories. (When making this comparison, it should be kept in mind that a concerted effort was made to distribute questionnaires to every person who boarded trains covered in the survey at stations within the designated originating area.)

A total of 1,503 questionnaires were distributed to riders who boarded a reverse morning peak hour train. This compares with a total of 3,096 reverse direction peak hour riders as recorded by conductor head counts for July 1991. (See above the section "Metra: The Rail Connection.) It is likely, therefore, that about half of all reverse direction morning peak hour riders were traveling from a suburban station to a station more distant from the city.

A total of 150 questionnaires were collected from riders who deboarded at stations within the designated originating area. In addition, 235 questionnaires were not returned and 21 riders refused to participate in the study, for a total of 256 riders who boarded within the designated area but for whom no information is available. It is likely that some proportion of those 256 riders deboarded within the designated originating area. A reasonable inference is that about one in ten riders who board reverse direction morning peak hour trains at stations in the City of Chicago, Evanston, Oak Park and Cicero also deboard at stations within these communities.

Overall, excluding only the 150 who are definitely identified as having deboarded within the city, usable, completed questionnaires were obtained from 1,084 riders out of a possible 1,353 (for a completion rate of 80%). A line by line analysis is shown in the following table.

OUTCOME OF QUESTIONNAIRES DISTRIBUTED TO MORNING PEAK HOUR REVERSE DIRECTION RIDERS WHO BOARDED TRAIN AT STATIONS WITHIN DESIGNATED ORIGINATING AREA

	Total Distributed*	Deboarded Within Area	Total Assumed Eligible	Assumed Eligible			
				Not Returned	Refused	Returned Incomplete	Returned Complete
All Lines	1,503	150	1,353	235	21	13	1,084
C&NW-N	433	91	342	95	8	3	236
C&NW-NW	302	7	295	29	7	2	257
C&NW-W	174	11	163	15	-	2	146
MILW N	204	2	202	62	-	3	137
MILW W	101	5	96	5	-	1	90
BN	147	5	142	10	-	1	131
ELEC. ML	117	23	94	17	6	1	70
ROCK ISLAND	25	6	19	2	-	-	17

* Questionnaires were distributed to all riders upon boarding.

BACKGROUND CHARACTERISTICS*

Reverse commuters do not constitute a distinctive market segment as defined by the demographic profiles for riders on all eight lines.

- They are almost evenly split between men and women, with women being slightly more numerous.
- Over half of these reverse commuters are White, one-fourth are African-Americans and one-tenth are of Hispanic origin.
- Over half are between 25-44.
- About one-third have total family incomes below $25,000 a year. Another one-fourth each have incomes of $25,000 to $40,000 and over $40,000. (One-sixth did not answer the question about income.)

The sex and age profiles of reverse commuters are almost identical with those of all commuters as measured in a 1985 on-board Metra survey. On the other hand, the race/ethnicity profile of reverse commuters shows that they are disproportionately white, while Blacks are underrepresented. (An RTA analyses of 1990 census data shows that 40% of the combined Chicago/Evanston/Oak Park/Cicero population is white, 37% Black, and 12% percent Hispanic.)

* See summary table at the end of this section for the demographic profile of Metra reverse commuters overall and by line.

Additional information on the ethnicity of reverse commuters is provided by the proportion of respondents who used a Spanish or Polish language version of the questionnaire. (However, it should be noted that some riders of Spanish or Polish background may have used the English language version.)

Overall, 91 percent of the completed questionnaires were in English, 7 percent in Spanish, and 2 percent in Polish. The following table shows the distribution of completed English, Spanish, and Polish questionnaires by line.

	English	Spanish	Polish	Total
	%	%	%	%
C&NW, North	89	10	1	100
C&NW, Northwest	94	5	1	100
C&NW, West	99	1	-	100
Burlington Northern	87	10	3	100
Milwaukee North	85	9	6	100
Milwaukee West	91	7	2	100
Metra Electric	97	-	3	100
Rock Island	88	12	-	100

The market profiles of passengers of each line tend not to deviate from the overall pattern, though in some respects some lines are distinctive.

- C&NW Northwest tends to serve upper income Whites more than do other lines.

- On two lines -- C&NW North and Milwaukee North -- reverse commuters differ from the average in being more female, minority, and low income.

- Three lines tend to serve more male reverse commuters than the average, but differ somewhat from each other in other characteristics.
  - Metra Electric tends to serve upper income men
  - Milwaukee West tends to serve lower income men
  - C&NW West tends to serve White men

BACKGROUND CHARACTERISTICS OF REVERSE COMMUTERS

Number of Respondents:	All Reverse Commuters (1084) %	C&NW N (236) %	C&NW NW (257) %	C&NW W (146) %	Milw N (137) %	Milw W (90) %	BN (131) %	Elec. ML (70) %
Sex								
Men	46	32	47	58	36	63	47	51
Women	50	63	49	41	58	31	48	40
No Answer	5	5	4	1	5	6	5	9
Ethnicity								
White	53	43	61	63	42	50	55	54
Black	24	29	19	18	28	27	21	31
Hispanic	12	17	9	9	20	13	12	--
All other	4	4	6	5	5	3	6	4
No Answer	6	7	5	5	7	7	7	10
Age								
24 & younger	12	10	9	16	15	12	15	13
25-44	56	52	64	57	49	56	54	47
45-64	22	25	18	18	23	20	21	30
65 & older	6	6	5	8	7	6	5	4
No Answer	5	7	4	1	6	6	5	6
Family Income								
Under $10,000	13	19	11	10	18	11	12	6
$10,001-$25,000	23	20	19	24	26	31	27	14
$25,001-$40,000	23	16	26	24	13	33	26	33
$40,001-$55,000	12	11	14	12	12	4	11	14
Over $55,000	14	11	18	16	10	9	9	19
No Answer	16	22	12	14	22	11	15	14

CHARACTERISTICS OF METRA TRIP*

While a few are not travelling from their homes, most reverse commuters are "regulars" who take long trips five days a week from their homes to their destinations. However, a sizable minority commute less frequently.

Reverse commuters spend a good deal of time getting to their morning's destination. Two-thirds spend at least one hour, with one-third spending 1½ hours or more. (In comparison, in a 1985 on-board survey, only one-seventh of peak direction commuters travelled for 1½ hours or more.)

Five-day-a-week riders make up the bulk of Metra reverse commuters. Half of them ride Metra five days a week, every Monday through Friday. There are additional reverse commuters that ride Metra five days a week, including weekends, so that in total almost two-thirds ride Metra five or more days a week.

About one-fourth of reverse commuters take the Metra trip one to four times a week, and another one in ten take the reverse commute train less frequently than that. (In the 1985 survey, just under one-fifth of peak direction commuters rode Metra less than five days a week.)

* See summary table at the end of this section.

Eight out of ten (82%) report their trip had started from home. A few (12%) of all Metra reverse commuters did not start their trip from home the morning of the survey (6% did not answer the question). This survey did not obtain information as to what were the origins to those trips. It may be that some were returning home from a night job in the city, while others may be on a business trip from out of town. Such passengers do not fit the category "reverse commuter." In any case, it appears that perhaps as many as one-in-ten who take "reverse commute trips" on Metra are not really reverse commuters. Their travel patterns, motivations, and demographic characteristics are likely to differ from reverse commuters. There are a few differences among five of the lines in these respects.

C&NW NORTHWEST LINE

There are proportionately slightly more weekend riders on this line than among all reverse commuters.

MILWAUKEE DISTRICT/NORTH LINE

The reverse commute for riders on this line tends either to be short (under an hour) or very long (over 1½ hrs.). This line has the highest percent of riders who take this Metra trip only one or two days a week.

MILWAUKEE DISTRICT/WEST LINE

Almost three-quarters of reverse commuters on this line travel over an hour and many are en route more than an hour and a half. A relatively high proportion of its reverse commuters commute on the weekends.

BURLINGTON NORTHERN LINE

More than two-fifths spend 1½ hours or more in their total trip time. This is the highest proportion of all lines.

METRA ELECTRIC

This line has the highest proportion (over one-fourth) of reverse commuters who start their trips somewhere other than home. The survey data provides no ready explanation for this, though presumably many are shift workers. Also, their trips tend to be short compared with reverse commuters on other lines.

CHARACTERISTICS OF METRA TRIP

Number of Respondents:	All Reverse Commuters (1084) %	C&NW N (236) %	C&NW NW (257) %	C&NW W (146) %	Milw N (137) %	Milw W (90) %	BN (131) %	Elec. ML (70) %
Trip Origin								
Started from home	82	84	85	86	81	83	81	67
Started elsewhere	12	8	10	11	11	12	13	27
No Answer	6	8	5	3	8	4	6	6
Total Trip Time								
Under 30 minutes	7	10	5	7	9	3	5	6
30 mins.to 1 hour	26	28	26	23	32	20	19	36
Trip takes 1 hr. or less	33	38	31	30	41	23	25	42
Greater than 1 hour but less than 1½ hours	28	25	32	29	19	32	29	26
1½ hours or more	36	33	34	38	35	40	43	29
No Answer	4	5	4	2	5	4	5	4
Frequency of this Metra Trip								
Takes trip Mon-Fri	51	49	46	56	56	59	56	47
Five days, including weekend	13	11	16	8	9	16	13	20
Total five (5) days	64	60	62	64	65	75	69	67
Three or four days a week	13	16	14	12	9	3	13	13
One or two days a week	11	14	9	9	17	11	8	9
Less often than weekly	10	9	12	14	8	7	8	6
No Answer	2	2	3	1	2	3	3	4

TICKETING*

There is no one type of ticket that is predominantly used by reverse commuters, with sizable proportions using months passes, one-way tickets, and ten-ride passes. Monthly unlimited ride passes are used by just over one-third of all reverse commuters while one-way tickets are used by just under one-third. The ten-ride pass is the third most widely used type of ticket, used by one-fourth. The weekly pass is used by less than 1 in 10 reverse commuters.

In comparison, in 1985, three-fourths of all peak direction commuters used monthly passes and only 4 percent used ten-ride passes. In all likelihood, this contrast is at least in part due to the relatively large number of reverse commuters who ride Metra less than five days a week as compared with peak-direction commuters. Also, the 1985 survey was conducted shortly before a discounted rate was applied to the ten-ride pass; it is likely that the discounted fare accounts for some of the difference between the two surveys.

There are only minor differences between Metra lines in the incidence of usage of each type of ticket. However, there are differences by demographics. These indicate that frequency of commuting, income and race are associated with the type of ticket used by reverse commuters:

- One-way tickets are used by 15 percent of everyday weekday riders and 47 percent of all other riders

- Monthly passes are used by 54 percent of everyday weekday riders and 14 percent of all other riders

* See summary tables at the end of this section.

- Weekly passes are used more by Blacks (11%) than by Whites (3%)

- Monthly passes are used more by those with family incomes of $40,000 or more (44%) than by those with incomes under $10,000 (23%)

- Ten-ride tickets are used more by those with incomes of $40,000 or more (31%) than by those with incomes under $10,000 (21%)

Monthly pass users spend on the average about $91 for that pass. About half spend between about $79 and $99, 13 percent less than that and 17 percent more than that (15 percent did not answer).

About $3 is spent on the average by the reverse commuters who purchase a one-way ticket. Almost half spend between about $2.55 and $3.30, 7 percent less than that, and 22 percent more than that (21 percent did not answer).

On the average, ten-ride passes cost the reverse commuter about $27. About half spend between about $25.00 and $31.00, 17 percent less than that, and 15 percent more than that (22 percent did not answer).

The $26 average spent on the weekly pass is comparable to the average for ten-ride passes. Just under half spend between $23 and $28, 13 percent less than that, and 11 percent more than that (31% did not answer).

One-third of monthly pass users purchase a Link-up pass enabling unlimited use of Pace and CTA services for the month. While only monthly pass buyers are entitled to buy a Link-up pass, there are persons with other ticket types who claim they have purchased a Link-up pass.

Considering all reverse commuters, 14 percent said they use Link-up passes. This compares with 3 percent of peak direction commuters who reported using Link-up passes in the 1985 survey. It is not possible from the available data to determine whether the contrast with 1985 reflects a difference between reverse and peak-direction commuters or whether it is due to the increased use of Link-up passes that has occurred over the past six years.

TICKETING

Number of Respondents:	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
Type of Ticket Used:								
Monthly	35	32	34	40	31	32	39	36
One-way	30	33	31	24	31	30	25	31
Ten-ride	24	23	24	29	25	22	24	21
Weekly	6	6	4	6	7	9	5	4
No Answer	6	6	7	1	7	7	7	7
MONTHLY PASS								
Number of Respondents using monthly pass	(375)	(75)	(88)	(58)	(43)	(29)	(51)	(25)
Average Cost	$91	$89	$97	$87	$86	$98	$87	$90
ONE WAY TICKET								
Number of Respondents using one-way ticket	(324)	(78)	(80)	(35)	(42)	(27)	(33)	(22)
Average Cost	$3	$3	$3	$4	$3	$4	$4	$3
TEN-RIDE TICKET								
Number of Respondents using Ten-Ride Ticket	(260)	(54)	(61)	(42)	(34)	(20)	(31)	(15)
Average Cost	$27	$26	$29	$26	$27	$27	$29	$23
WEEKLY PASS								
Number of Respondents using Weekly Pass	(62)	(15)	(10)	(9)	(9)	(8)	(7)	(3)
Average Cost	$26	$25	$33	$26	$22	$26	$28	$26

TICKETING (CONT.)

Number of Respondents:	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
Bought Link-up Pass								
Yes	14	9	15	14	15	14	22	9
No	78	80	79	84	74	78	67	81
No Answer	8	11	6	3	11	8	11	10

CLAIMED PURCHASE OF LINK-UP PASS
BY TYPE OF TICKET USED

	Monthly Pass (375)	One-Way Ticket (324)	Ten-Ride Ticket (260)	Weekly Pass (62)
	%	%	%	%
Bought Link-up Pass				
Yes	33	1	2	11
No	63	91	90	87
No Answer	4	8	8	2

RACE PROFILE OF USERS OF EACH
TYPE OF TICKET

	Monthly Pass (375)	Weekly Pass (62)	Ten-Ride Pass (260)	One-Way Ticket (324)
White	59	31	58	54
Black	22	44	22	23
Hispanic	10	18	10	15
All other/Undesignated	9	7	10	8

PAST AND FUTURE USE OF METRA*

Most Metra reverse commuters have been using Metra to get to their morning's destination for a period of time. On the other hand, a sizable proportion have been making their trip for less than a year. Since there has not been a comparable growth in reverse commuter ridership this past year, this suggests that there has been an equivalent loss of riders from the previous year. Such a loss could have occurred for a number of reasons, such as a reduction in reverse commuting or a switch to other modes of transportation. The survey does not provide information as to which is the correct reason. (Metra estimates that about 20% of rail riders leave the Metra system annually due to job change, retirement, disability, etc.) In any event, at this time most Metra reverse commuters expect to continue using Metra at least for the immediate future.

Over half of reverse commuters have travelled their Metra route over a year, and another one-fourth have been using this route for less than a year but more than a month. Almost all reverse commuters on Metra plan to continue using Metra in the future and most plan to use it more than a year in the future.

The only noteworthy differences by line are listed below. It should be noted that two of those lines have a relatively high proportion of new reverse commuters and three have pre 7:00 a.m. service to high volume suburban stations.

* See summary table at the end of this section.

C&NW NORTH LINE

The C&NW North reverse commuter differs from the overall profile of the average reverse commuter in that a slightly larger proportion of its riders have been using the line a year or more.

C&NW NORTHWEST

The Northwest line of the C&NW has a relatively large proportion of reverse commuters who have been using Metra less than a year. This is one of three lines having service arriving at high volume suburban stations prior to 7:00 a.m. and has a 45 minute headway.

BURLINGTON NORTHERN LINE

This line has a relatively high proportion of reverse commuters who have been riding the line less than a month. Nonetheless, the proportion who have been taking Metra for a year or more is about at the average. This line has service arriving at high volume suburban stations prior to 7:00 a.m. and has a one hour headway.

METRA ELECTRIC

This line has the largest proportion of reverse commuters (two-thirds) who have been taking this reverse commute over a year.

PAST USE/FUTURE USE OF METRA

Number of Respondents:	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
How Long Using Metra to Destination								
Less than a month	11	8	16	11	11	7	16	7
Less than a year (but more than 1 month)	27	23	32	32	26	29	24	23
A year or more	55	60	47	55	52	58	53	63
No Answer	7	8	5	3	11	6	8	7
Expects to Use Metra to Destination in Future								
Yes	88	87	88	91	84	91	85	86
No	6	4	9	5	6	3	6	6
No Answer	7	9	4	3	10	6	8	9
How Long in the Future Expects to Continue Using Metra								
Less than a year	17	11	20	19	16	22	17	17
A year or more	66	67	64	68	62	66	66	63
No Answer	5	8	4	4	5	3	3	6

PURPOSE OF TRIP AND CHARACTERISTICS OF COMMUTE TO WORK*

Eight out of ten Metra reverse commuters are going to work. (This is similar to the proportion of 1985 peak-direction commuters who were going to work.) Going to school (as a student) and taking the train for a personal reason were other reasons people gave for taking Metra from Chicago to its suburbs during the morning peak hours.

Reverse commuters going to work were asked:

- how long they have been working at their current work site
- type of facility they work at
- whether their employer helps with transportation costs
- whether they have a car available for work commute
- why they take Metra instead of car to work

There is considerable variation in the amount of time those who are going to work have worked at their current location. About one-third each has worked less than a year (30%), one year to five years (38%), and over five years (30%).

The 30 percent who have worked at their current location for less than one year compares with the 38 percent (reported in the previous section) of all reverse Metra commuters who have been riding Metra for less than one year. This general correspondence supports the interpretation that being a new reverse commuter is connected to a recent change in where one works.

* See summary tables at the end of this section.

Office buildings account for about one-third of the work sites. Private residences and factories are the next most frequently mentioned types of work sites. Less frequently mentioned sites are at health care facilities, retail stores, educational institutions and construction sites.

Most employers do not help pay for transportation costs for the reverse commuter to get to his/her job. Only one in ten workers gets any type of assistance with the cost of travelling to the job. (As noted below, it is likely that those who receive assistance are to a large degree domestic workers.)

Almost half of Metra's reverse commuters going to work have a car available to them for their commute. They take the train primarily because they think it is less stressful than driving, more convenient and less expensive. (In the 1985 on-board survey, about 9 in 10 peak direction commuters said they had a car available for their commuting trip. It may be that not having an available car helps explain why a reverse commuter uses Metra, but not why a peak-direction commuter does so.)

C&NW NORTH LINE

The proportion of working reverse commuters who work in private residences (presumably domestics) is largest (one-third) among reverse commuters on this line. The incidence of workers in office buildings and factories is sharply lower. (As noted earlier, reverse commuters on this line are disproportionately women, of minority status, with low household incomes.) For riders of this line, about one in five gets help from their employers in defraying commuting costs; it is likely that most of them are domestics.

C&NW NORTHWEST LINE

Reverse commuters going to work on this line have been at their current jobs a shorter amount of time than the average reverse commuter. They work in offices predominantly. (It was noted earlier that reverse commuters on this line tend to have higher household incomes.) These travellers are disproportionately likely to have a car available for the work commute, but choose not to use it because they feel that commuting by train is less stressful than is commuting by car.

C&NW WEST LINE

A relatively high proportion of these reverse commuters go to a manufacturing plant to work, although offices are still the most frequently named work site. Few domestics commute on this line. This compares with the fact, reported earlier, that three-fifths of the reverse commuters on this line are men, predominantly White.

MILWAUKEE DISTRICT/NORTH LINE

The work profile of reverse commuters on this line differs from that of all reverse commuters in that they tend to have worked at their present place of employment a relatively short amount of time. Over one-third have been commuting to their current place of work for less than a year, and another one-third have been doing so from between one year up to five years. Workers travelling to large multi-story office buildings comprise the bulk of the employed reverse commuters on this line. Also, it has a relatively high proportion of presumably domestic workers taking Metra to private residences in the northern suburbs. Only the C&NW North Line has a higher proportion of domestic workers riding it. (As noted earlier, reverse commuters on this line include a relatively large number of Hispanics and Blacks and people with low family incomes.)

While most employers of these reverse commuters do not help with commuting expenses, the presence of domestics most likely contributes to the somewhat above average incidence of employer help. Car availability is low for the Milwaukee District/North Line reverse commuters.

MILWAUKEE DISTRICT/WEST LINE

Going to a job is about the only reason passengers are on the early morning trains of this reverse commute line. Almost nine out of ten are going to a job. That job is disproportionately likely to be in a manufacturing plant of some sort. One-third are going to a manufacturing plant or factory, the highest proportion among all lines. The fact that there is a moderate concentration of manufacturers at some of the stations on this line helps to explain this fact. (As noted earlier, there is a relatively high incidence of men and low income riders among reverse commuters on this line.)

Few of this line's reverse commuters have a car available to them to drive to work, and very few have employers who help with the expense of commuting to work.

BURLINGTON NORTHERN LINE

Compared with all working reverse commuters, offices are the place of work for a relatively large proportion of reverse commuters on this line. Very few employers help the employee with transportation costs. Only one-third of BN reverse commuters have a car available to them for the work commute.

METRA ELECTRIC

The Chicago to University Park line has the highest proportion of reverse commuters who have been at their jobs a long time. Half have been at their job five years or longer. They are primarily workers in office buildings. Also, working for a school or college is the second most frequently mentioned category.

Employers do not help with transportation costs for the Metra Electric rider. This line has the highest proportion that do have a car available to them for the work commute, but they choose not to take it to avoid traffic stress and the expense of driving.

PURPOSE OF TRIP

Number of Respondents:	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
Purpose of Trip								
Work/Job	83	83	84	81	84	88	81	84
Personal/Pleasure	5	3	6	6	4	4	5	1
School	2	2	1	5	1	1	1	6
Other	3	4	4	5	1	1	2	1
No Answer	7	8	5	3	10	6	11	7

CHARACTERISTICS OF COMMUTE TO WORK

Number of Respondents:	All Reverse Commuters (902)	WORKING REVERSE COMMUTERS C&NW N (196)	C&NW NW (216)	C&NW W (118)	Milw N (115)	Milw W (79)	BN (106)	Elec. ML (59)
	%	%	%	%	%	%	%	%
How Long Working At Job								
Less than 1 year	31	27	36	27	37	26	33	19
One year up to 5 years	38	35	40	38	37	40	42	27
Five years or more	30	32	24	33	24	33	25	50
No Answer	2	5	---	1	3	-	1	5
Work Site								
Multi-story office	15	10	13	18	23	15	14	19
Small office	17	11	19	21	16	11	24	14
Other office	4	2	7	2	3	9	4	2
Total office	36	23	39	41	42	35	42	35
Private residence	17	33	9	8	30	1	13	12
Manufacturing Plant	15	10	16	22	6	34	14	8
Hospital/Health Care	5	7	5	7	3	--	6	7
Retail/Department Store	5	6	7	3	2	4	8	--
School/College	4	3	3	7	1	5	3	14
Construction Site	3	1	3	3	3	5	4	2
All others	13	11	16	9	9	13	9	20

CHARACTERISTICS OF COMMUTE TO WORK (CONT.)

	WORKING REVERSE COMMUTERS							
Number of Respondents:	All Reverse Commuters (902)	C&NW N (196)	C&NW NW (216)	C&NW W (118)	Milw N (115)	Milw W (79)	BN (106)	Elec. ML (59)
	%	%	%	%	%	%	%	%
Does Employer Help With Transportation Costs								
Yes	14	21	14	13	16	9	8	14
No	83	74	86	84	80	91	91	81
No Answer	2	4	--	3	4	--	1	5
Is Car Available for Work Commute								
Yes	44	42	54	50	36	33	33	58
No	53	54	45	49	57	67	65	39
No Answer	2	4	1	1	7	--	2	3
Why Takes Metra Instead of Car to Work (MAJOR MENTIONS)								
Less Traffic Stress	19	17	30	23	15	10	8	20
Convenience	10	8	11	14	12	8	8	12
Less Expensive	9	8	8	14	4	8	8	14

MOST LIKED AND LEAST LIKED METRA CHARACTERISTICS*

Responses to open-ended questions indicate that service frequency and scheduling are key characteristics influencing the attitudes of reverse commuters toward Metra.

Respondents were asked to write down what they liked best and least about travelling on Metra. Self-administered questionnaires do not usually produce an abundance of information to open ended questions, but most Metra reverse commuters were able to jot down some of their thoughts in short, one or two word answers.

Most (82%) reverse commuters named at least one thing they liked about Metra. Service related characteristics such as on time trains, fast trains, and comfortable train cars were most frequently mentioned. Others saw the time spent on the train as an opportunity to do something else, such as work, read, sleep or socialize. Not worrying about the hassle of driving and fighting traffic were other reasons given for liking the Metra commute. Friendly conductors and other Metra personnel were also cited as Metra pluses.

On the negative side, 58 percent named at least one dislike. Specifically, not enough trains, the absence of express trains, and delays in service were frequent complaints.

* See summary table at the end of this section.

Other dislikes mentioned to a lesser degree were noisy or inconsiderate passengers, dirty or crowded cars, and no smoking rules. Cost of travelling on Metra was mentioned by a small percent of the reverse commuters. The pattern of likes and dislikes is very similar across all lines. Two lines that deviate from the norm are:

MILWAUKEE DISTRICT/NORTH LINE

Less than half the reverse commuters on this line named at least one dislike. This is the smallest incidence of complaints among all lines.

METRA ELECTRIC

Almost three-fourths of the reverse commuters on this line voiced at least one dislike. Despite the fact that there are six trains scheduled during reverse peak time, their most frequent complaint is that they want more frequent trains.

MOST LIKED AND LEAST LIKED METRA CHARACTERISTICS

Number of Respondents:	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
Named at Least One Like	82	81	86	87	79	81	77	84
Likes best **(MAJOR MENTIONS)**								
Service (net)	47	50	49	38	51	32	48	50
On time	22	24	25	23	20	11	15	24
Comfortable	15	14	16	13	15	14	15	19
Speed	11	12	9	7	15	9	13	10
Use time on train	15	16	16	19	12	22	8	14
Ease of commuting	14	17	10	16	13	12	12	17
No traffic	9	5	12	13	9	16	10	1
Conductors/Workers are friendly/polite	8	7	12	5	10	4	8	1
Named at Least One Dislike	58	54	66	61	47	56	52	73
Likes least								
Schedule/service (net)	31	28	32	34	28	29	31	39
Not enough trains	18	15	22	16	20	13	14	23
Service delays	5	3	2	12	4	2	7	6
No express trains	5	6	2	5	1	11	3	7
Discomfort (net)	12	11	19	11	9	8	7	9
Noisy/Inconsiderate passengers	3	4	6	2	1	1	1	--
Cost	4	5	4	6	5	2	4	3

BOARDING METRA STATIONS AND ACCESS MODE*

Overall, about three-fifths of reverse commuters boarded Metra at a downtown terminal. However, there is considerable variation among lines in the proportion of their reverse commuters who board at its downtown terminal vs. other stations. Lines that use the same terminal vary in this regard. Also, two-fifths of all reverse commuters use CTA services to access their boarding station, compared with one-fourth who walk. (A larger proportion use CTA bus than CTA rail, undoubtedly reflecting the wider coverage provided by CTA bus routes.) Small proportions use other means of access. The proportion that uses CTA services vs. walking to get to their boarding station varies from line to line. This indicates that it is not the location of the downtown terminal that determines whether it is used but, rather, the characteristics of each line's users -- including where they live in relation to the line's station locations and connecting CTA routes. Also, the large proportion that walks to their boarding station suggests that not living within walking distance inhibits Metra use by potential riders.

Reverse commuters were asked to indicate the station where they boarded the train. (A separate form of the questionnaire was used for each line, listing the city stations on its route.) They were also asked to indicate how they normally get to that station. Commuters who did not answer these questions but who recorded a telephone number were telephoned by Total Research to get this information. If the station of boarding could not be determined, the questionnaire was not tabulated. The pattern of response differs from line to line, reflecting the number and location of city stations on each.

* See summary tables at the end of this section.

C&NW NORTH LINE

The station of origin, the Chicago Madison St. station, is where most reverse commuters on this line start their Metra commute. Ravenswood is the next stop that picks up a sizeable number of commuters. The Main St. Evanston stop picks up most of the reverse commuters who board in Evanston. CTA services and walking are each used by one-third to get to their boarding station.

C&NW NORTHWEST LINE

The Northwest Line boards most of its passengers at the Madison St. station. It keeps picking up reverse commuters at Clybourn, Irving Park and Jefferson Park stations. After that, the incidence of boarding falls off drastically. CTA services are used by two-fifth's to get to the train station. Walking is the second most prevalent way (one-fourth) to get to one's boarding station. A relatively high proportion drive and park their cars.

C&NW WEST LINE

This line boards the bulk of its reverse commuters at the Madison St. station. The rest board primarily at Oak Park. The stop in between these two stations, Kedzie, does not board many people. CTA services are the most common way to get to the Metra station, while walking is next most common. About one in ten get dropped off or drive and park their car.

MILWAUKEE DISTRICT/NORTH LINE

Six in ten of the reverse commuters on this line start the Metra part of their trip at Union Station. Two out of ten board at Western and Healy. CTA services bring over two-fifths of these Metra riders to their station. Walking is the next most often cited way to get to the boarding station.

MILWAUKEE DISTRICT/WEST LINE

The line to Elgin and Big Timber boards about seven in ten of its reverse commuters at Union Station. Some board at Western and at Hermosa, but after that boarding of reverse commuters falls off sharply. Over half use CTA services to get to their Metra station. Walking brings most of the remaining reverse commuters to Metra.

BURLINGTON NORTHERN LINE

Almost three-fourths of the Burlington Northern reverse commuters start their Metra ride at Chicago's Union Station. Few additional reverse commuters board until the Cicero stop. CTA provides most (about half) of the transportation to the Metra boarding station. Walking and being dropped off at the station are infrequently mentioned.

METRA ELECTRIC

The Chicago to University Park line boards two-thirds of its reverse commuters at Randolph/S. Water St. Van Buren and the University of Chicago (59th St.), rank ahead of the other numerous stops of this line in the number of boarding reverse commuters. At Kensington, where the Metra Electric mainline and Blue Island branch line connect, a few more board.

This line has the highest proportions who walk (four in ten) or get dropped off (two in ten) at their Metra station. An additional one-third takes CTA services to their Metra station.

BOARDING STATION AND ACCESS MODE

	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
Where boarded train:								
Uses downtown terminal	59	44	54	71	59	69	74	60
Uses other stations	41	56	46	29	41	31	26	40
Normal access mode:								
CTA (rail or bus)	41	32	41	44	43	54	51	36
Walk	25	33	23	23	23	24	14	40
Dropped off in car by someone else	10	8	10	10	7	8	10	19
Taxi	3	3	3	2	2	1	5	1
Drive and park car	6	4	9	10	2	6	3	7
Bike/Motorcycle	*	-	-	1	-	-	-	-
No answer	21	25	21	16	27	21	26	7

* Less than one percent

BOARDING METRA STATIONS AND ACCESS MODE

BASE: C&NW NORTH	**(236)**
	%
Boarded at:	
Chicago (Madison St. Station)	44
Clybourn	8
Ravenswood	22
Rogers Park	11
Main Street, Evanston	10
Davis Street, Evanston	2
Central Street, Evanston	3
Normal access mode	
Walk	33
CTA Bus	25
Dropped off in car by someone else	8
CTA Rail	7
Drive and park car	4
Taxi	3
No Answer	25

**Multiple mentions

BOARDING METRA STATIONS AND ACCESS MODE

BASE: C&NW NORTHWEST	**(257)**
	%
Boarded at:	
Chicago (Madison St. Station)	54
Clybourn	12
Irving Park	16
Jefferson Park	15
Gladstone Park	-
Norwood Park	2
Edison Park	1
Normal access mode	
CTA Bus	31
Walk	23
CTA Rail	10
Dropped off in car by someone else	10
Drive and park car	9
Taxi	3
No Answer	21

**Multiple mentions

BOARDING METRA STATIONS AND ACCESS MODE

BASE: C&NW WEST	**(146)**
	%
Boarded at:	
Chicago (Madison St. Station)	71
Kedzie	6
Oak Park (Marion Street)	23
Normal access mode	
CTA Bus	32
Walk	23
CTA Rail	12
Dropped off in car by someone else	10
Drive and park car	10
Taxi	2
Bike/Motorcycle	1
No Answer	16

**Multiple mentions

BOARDING METRA STATIONS AND ACCESS MODE

BASE: Milwaukee District/North Line	**(137)**
	%
Boarded at:	
Chicago (Union Station)	59
Western Avenue	11
Healy	11
Grayland	7
Mayfair	9
Forest Glen	3
Edgebrook	1
Normal access mode	
CTA Bus	34
Walk	23
CTA Rail	9
Dropped off in car by someone else	7
Drive and park car	2
Taxi	2
No Answer	27

**Multiple mentions

BOARDING METRA STATIONS AND ACCESS MODE

BASE: Milwaukee District/West Line	**(90)**
	%
Boarded at:	
Chicago (Union Station)	69
Western Avenue	12
Hermosa	10
Cragin	3
Hanson Park	3
Galewood	1
Mars	-
Mont Clare	1
Normal access mode	
CTA Bus	37
Walk	24
CTA Rail	17
Dropped off in car by someone else	8
Drive and park car	6
Taxi	1
No Answer	21

**Multiple mentions

BOARDING METRA STATIONS AND ACCESS MODE

BASE: Burlington Northern	**(131)**
	%
Boarded at:	
Chicago (Union Station)	74
Halsted Street	1
Western Avenue	8
Cicero	15
Clyde	2
Normal access mode	
CTA Bus	36
CTA Rail	15
Walk	14
Dropped off in car by someone else	10
Taxi	5
Drive and park car	3
No Answer	26

**Multiple mentions

BOARDING METRA STATIONS AND ACCESS MODE

BASE: Metra Electric	**(70)**
	%
Boarded at:	
Chicago (Randolph/South Water Streets)	60
Van Buren St.	9
Roosevelt Road	-
18th Street	1
23rd Street	-
27th Street	3
47th Street	-
53rd Street	1
55th, 56th, 57th Streets	1
59th Street (University of Chicago)	10
63rd Street	-
75th Street	-
79th Street	4
83rd Street	1
87th Street	1
91st Street	-
95th Street	1
103rd Street	-
107th Street	-
111th Street	-
Kensington	6
State Street	-
Stewart Ridge	-
West Pullman	-
Racine Avenue	-
Normal access mode	
Walk	40
CTA Bus	20
Dropped off in car by someone else	19
CTA Rail	16
Drive and park car	7
Taxi	1
No Answer	7

**Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION*

The pattern of destination stations varies from line to line. On some lines, most reverse commuters get off at just a few stations, with only a handful getting off at each of the other stations. On other lines, destinations are more evenly spread over a number of stations, though even in those cases there are some stations that are destinations for very few reverse commuters. These varying patterns reflect the number of stations on a line, the scheduling of express trains, and the existence of major employment centers near some stations.

For all lines, the most frequent way of getting from the Metra station to one's final destination is walking. The proportion who walk varies from a low of 31 percent to a high of 61 percent.

The second most frequent mode is being picked up in a car by someone else; the tendency is for the incidence of walking to lessen as being picked up increases. Also, being picked up appears to be associated with the occurrence of domestic workers.

Use of Pace is low on all lines, which indicates that Pace is not functioning well as a distributor for Metra.

Between 3% - 10% of passengers on each line drive from their destination Metra station to their final destination. These may include night workers returning home who, as noted earlier, are not really reverse commuters. They may also include reverse commuters who find it convenient to maintain a "station car" to drive from the Metra station to work.

* See summary tables at the end of this section.

If respondents failed to note their destination station or their access mode to their final destination, Total Research telephoned as many of them as possible to get that information. If the final Metra stop was not ultimately identified, the questionnaire was not tabulated.

C&NW NORTH LINE

At least some reverse commuters on this line get off at almost all suburban stops along the route. Highland Park, Glencoe and Lake Forest have the largest number of deboarding passengers. The other suburbs have varying numbers of passengers disembarking, but Waukegan is the last stop at which a sizeable number of reverse commuters get off.

Once they get off the train, the bulk of the reverse commuters of the C&NW North Line walk to their final destination, which is usually their place of employment. Some passengers (in all likelihood domestic workers) are picked up in a car and driven to their final destination. Taxis and Pace buses take a small percent of the commuters to their destinations.

C&NW NORTHWEST LINE

Once the trains on this line leave Chicago and its immediate suburbs, few reverse commuters get off the train until they are past Cumberland. Mount Prospect, Arlington Heights, Arlington Park (site of the race track), Palatine and Barrington are the stops where most disembark. About four in ten walk to their final destination and another two in ten get picked up at the train station and are driven to their final destination. Small percentages board a Pace bus or take a taxi.

C&NW WEST LINE

Most of the reverse commuters on this line don't get off until Elmhurst. Elmhurst, Villa Park, Lombard, Glen Ellyn, Wheaton and the final stop Geneva, are where most of the passengers disembark. The most frequently named (one-third) way of getting from the station to the final destination is walking. A substantial percentage of the West Line reverse commuters get picked up at the station by someone or take a Pace bus.

MILWAUKEE DISTRICT/NORTH LINE

About one-third of this line's reverse commuters get off at Northbrook, a major employment center. The next station, Deerfield, has the next highest percent of disembarking reverse commuters. Morton Grove, Golf and Glenview each have a few disembarking reverse commuters. After Lake Forest, there are very few passengers left.

Almost equal numbers (about three in ten) walk to their destination or are picked up by car. The apparently high proportion of domestics on this line (noted earlier) may account for the high rate of being picked up by car. Taking a taxi or Pace bus are mentioned least frequently as ways of getting to the final destination.

MILWAUKEE DISTRICT/WEST LINE

After Mont Clare, the last Chicago "origin" station, few get off until Bensenville (10-15 minutes later), Itasca, Medinah and Roselle. The next station at which a sizable proportion get off is Elgin.

Almost half walk from the station to their destination. Being picked up by car ranks second (less than one in five) in frequency of mention.

BURLINGTON NORTHERN LINE

Reverse commuters on this line travel a distance to get to their final destination. Most do not get off until Western Springs, Hinsdale or Westmont. One-third ride until the final four stops -- Lisle, Naperville, Route 59 and finally, Aurora. While this line has numerous other stops, local trains apparently handle the few people who get off at them. The express trains take the bulk of the passengers out to the distant suburbs where their jobs are.

One-third of the BN reverse commuters walk to their final destination. One-fifth are picked up at the station and just over one in ten takes a Pace bus from the train station.

METRA ELECTRIC

This line, with its University Park final destination for some of its trains and Blue Island as the final destination of a branch line, has many stops with a few getting off at each. There is a mixture of local and express trains on this line, but the largest numbers get off at Harvey, Homewood, Flossmoor, Richton Park and University Park.

Three-fifths of the reverse commuters on this line walk to their final destination. The rest are mostly picked up at the station by someone in a car and a few take a Pace bus.

ACCESS MODE TO FINAL DESTINATION FROM METRA STATION

	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
Walk	41	45	41	36	31	46	37	61
Picked up in car by someone else	19	15	20	17	28	17	20	21
Pace Bus	9	6	8	14	7	11	12	9
Drives	6	3	7	8	5	10	3	4
Taxi	5	6	5	3	7	1	5	1
Bike/Motorcycle	1	1	-	2	-	-	2	1
No Answer	22	26	23	21	23	19	28	6

Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION

BASE: C&NW NORTH	(236)
	%
Destination station:	
Wilmette	8
Kenilworth	3
Indian Hill	1
Winnetka	5
Hubbard Woods	5
Glencoe	11
Braeside	2
Ravinia Park	*
Ravinia	2
Highland park	19
Highwood	4
Fort Sheridan	3
Lake Forest	11
Lake Bluff	5
Great Lakes	7
North Chicago	8
Waukegan	5
Zion	*
Winthrop Harbor (IL)	-
Kenosha	*
Access to final destination*	
Walk	45
Picked up in car by someone else	15
Taxi	6
Pace Bus	6
Drives	3
Bike/Motorcycle	1
No Answer	26

*Less than 0.5%

**Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION

BASE: C&NW NORTHWEST	(257)
	%
Destination station:	
Park Ridge	4
Dee Road	1
Desplaines	6
Cumberland	2
Mount Prospect	12
Arlington Heights	23
Arlington Park	18
Palatine	11
Barrington	14
Fox River Grove	*
Cary	2
Crystal Lake	3
Woodstock	2
McHenry	1
Harvard	1
Access to final destination**	
Walk	41
Picked up in car by someone else	20
Pace Bus	8
Drives	7
Taxi	5
No Answer	23

**Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION

BASE: C&NW WEST	**(146)**
	%
Destination station:	
River Forest	1
Maywood	-
Melrose Park	2
Bellwood	1
Berkeley	3
Elmhurst	13
Villa Park	12
Lombard	12
Glen Ellyn	12
College Avenue	4
Wheaton	19
Winfield	3
West Chicago	8
Geneva	12
Access to final destination**	
Walk	36
Picked up in car by someone else	17
Pace Bus	14
Drives	8
Taxi	3
Bike/Motorcycle	2
No Answer	21

**Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION

BASE: Milwaukee District/North Line	**(137)**
	%
Destination station:	
Morton Grove	7
Golf	8
Glenview	13
Northbrook	34
Deerfield	25
Lake Forest	6
Libertyville	3
Grayslake	1
Round Lake	1
Long Lake	-
Ingleside	-
Fox Lake	3
Access to final destination**	
Walk	31
Picked up in car by someone else	28
Taxi	7
Pace Bus	7
Drives	5
No Answer	23

**Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION

BASE: Milwaukee District/West Line	**(90)**
	%
Destination station:	
Elmwood Park	2
River Grove	2
Franklin Park	3
Mannheim	1
Bensenville	12
Wood Dale	8
Itasca	18
Medinah	10
Roselle	9
Schaumburg	4
Hanover Park	3
Bartlett	8
National Street	1
Elgin	18
Big Timber Road	-
Access to final destination*	
Walk	46
Picked up in car by someone else	17
Pace Bus	11
Drives	10
Taxi	1
No Answer	19

**Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION

BASE: Burlington Northern	**(131)**
	%
Destination station:	
Lavergne	1
Berwyn	2
Harlem Avenue	-
Riverside	2
Hollywood (zoo stop)	-
Brookfield	2
Congress Park	1
LaGrange Road	6
LaGrange, Stone Avenue	3
Western Springs	8
Highlands	1
Hinsdale	15
West Hinsdale	-
Clarendon Hills	5
Westmont	10
Downers Grove, Fairview Avenue	-
Downers Grove, Main Street	8
Belmont	3
Lisle	13
Naperville	11
Route 59	3
Aurora	8
Access to final destination*	
Walk	37
Picked up in car by someone else	20
Pace Bus	12
Taxi	5
Drives	3
Bike/Motorcycle	2
No Answer	28

**Multiple mentions

DESTINATION METRA STATIONS AND ACCESS MODE TO FINAL DESTINATION

BASE: Metra Electric	**(70)**
	%
Destination station:	
Riverdale	6
Ivanhoe	7
147th Street	3
Harvey	13
Hazel Crest	3
Calumet	-
Homewood	17
Flossmoor	10
Olympia Fields	4
211st Street	3
Matteson	3
Richton Park	13
University Park	11
Ashland Avenue	1
Burr Oak	-
Blue Island	6
Access to final destination*	
Walk	61
Picked up in car by someone else	21
Pace Bus	9
Drives	4
Bike/Motorcycle	1
Taxi	1
No Answer	6

**Multiple mentions

IMPORTANCE OF SERVICE CHARACTERISTICS*

ALL METRA REVERSE COMMUTER LINES

The importance scores of the nine service characteristics that were rated decline gradually, without any sharp break. The three top ranking attributes account for almost half of the importance ratings:

- Frequency of schedules (17)
- Convenience of schedules (16)
- Speed of the Metra trip (15)
- Convenience of getting from Metra station to final destination (13)
- Cost of travel on Metra (11)
- Comfort of Metra trains (10)
- Convenience of getting to Metra station (9)
- Courtesy of Metra personnel (7)
- Auto park at the Metra station (2)

There are fluctuations in importance scores from line to line, but the overall pattern tends to be similar in all cases. For all lines, frequency and convenience of schedules rank among the top three in importance, while speed ranks near or at the top. In all cases, parking ranks lowest.

* Importance of service characteristics was measured by Total Research's proprietary COMPASS™ analytical model, based on a multiple paired comparison procedure. A full description of this model is to be found in the Technical Appendix. The number next to each attribute is its importance score. The scores form a ratio scale and the sum of scores on all attributes for each line is 100.

C&NW NORTH LINE

The three most important quality of service characteristics to reverse commuters of the North line are:

- Speed of Metra trip (21)
- Frequency of schedules (17)
- Convenience of schedules (17)

Together these three attributes account for over one-half of the total importance ratings among the characteristics of a Metra trip listed.

Ranking next in order of importance are:

- Convenience of getting **from** the Metra station to final destination (12)
- Convenience of getting **to** Metra station (10)
- Cost of travel on Metra (9)
- Comfort of Metra trains (7)
- Courtesy of the Metra personnel (6)

Auto parking at the Metra station (1) is the least important to the rider of the C&NW North reverse line.

C&NW NORTHWEST LINE

The two characteristics that rank highest in importance to C&NW Northwest passengers account for one-third of the importance scores:

- Frequency of schedules (18)
- Convenience of schedules (16)

Of only slightly less importance to passengers on this line are two characteristics that account for one-fourth of importance scores:

- Convenience of getting **from** the Metra station to the final destination (14)
- Speed of Metra trip (13)

Next in order of importance are:

- Cost of travel on Metra (11)
- Comfort of the Metra trains (10)
- Convenience of getting **to** the Metra station (9)
- Courteous Metra personnel (7)

Least important Metra characteristics to these reverse commuters is auto parking at the Metra station (2).

C&NW WEST LINE

The top two characteristics to reverse commuters who ride the C&NW West line, making up more than one-third of the importance scores, are:

- Frequency of schedules (19)
- Convenience of schedules (18)

Speed and cost rank next in importance:

- Speed of Metra trip (13)
- Cost of travel on Metra (12)

The ranking of the remaining attributes is:

- Convenience of getting from the Metra station to final destination (10)
- Convenience of getting to Metra station (10)
- Comfort of Metra trains (9)
- Courtesy of Metra personnel (7)
- Auto parking at Metra station (2)

MILWAUKEE NORTH LINE

The three top-ranking attributes account for about half of the total importance ratings:

- Frequency of schedules (18)
- Convenience of schedules (15)
- Speed of Metra trip (15)

The next important attributes are:

- Convenience of getting from Metra station to the final destination (13)
- Comfort of Metra trains (12)
- Convenience of getting to Metra station (10)

- Courtesy of Metra personnel (8)
- Cost of travel on Metra (8)

The least important Metra characteristic to these reverse commuters is:

- Auto parking at the Metra station (1)

MILWAUKEE WEST LINE

Speed of the trip ranks first in importance to Milwaukee West passengers.

- Speed of the Metra trip (17)

Next in importance, with identical scores are:

- Frequency of schedules (14)
- Comfort of the Metra trains (14)

The next five characteristics are very close to each other in importance. Together they comprise about half of the importance scores:

- Convenience of schedules (12)
- Cost of travel on Metra (12)
- Convenience of getting from Metra station to final destination (11)
- Convenience of getting to Metra station (10)
- Courtesy of the Metra personnel (8)

The remaining characteristic, auto parking at the Metra station (2), is the least important.

BURLINGTON NORTHERN

The Burlington Northern reverse commuters rate as most important trains that run frequently, at convenient hours, and are fast. One-half of the total importance scores go to these three Metra attributes:

- Frequency of schedules (18)
- Convenience of schedules (16)
- Speed of Metra trip (16)

The next important characteristics account for one-quarter of total importance to reverse commuters of the Burlington Northern line:

- Cost of travel on Metra (13)
- Convenience of getting from the Metra station to the final destination (13)

Ranking somewhat lower in importance are:

- Comfort of Metra trains (9)
- Convenience of getting to the Metra station (8)
- Courtesy of the Metra personnel (6)

Reverse commuters place the least importance on auto parking at the Metra station (1).

METRA ELECTRIC LINE

The top two most important characteristics to Metra Electric reverse commuters, comprising more than one-third of the total importance ratings are:

- Convenience of getting from the Metra station to the final destination (18)
- Convenience of schedules (17)

The next six characteristics decline gradually in their importance ratings.

- Speed of the Metra trip (13)
- Convenience of getting to Metra station (12)
- Comfort of Metra trains (11)
- Frequency of schedules (10)
- Courtesy of the Metra personnel (9)
- Cost of travel on Metra (8)

The last service attribute of least importance to reverse commuters is auto parking at Metra stations (2).

COMPASS Importance Scores of Nine Metra Attributes
Among All Metra Reverse Commuters Compared with
Scores for Reverse Commuters of Seven Individual Lines

	Attribute*									
	A	B	C	D	E	F	G	H	I	Base
All Metra reverse commuters	17	16	15	13	11	10	9	7	2	(1084)
Reverse commuters of seven lines										
CN & W North	17	17	[21]	12	9	7	10	6	1	(236)
CN & W Northwest	18	16	13	14	11	10	9	7	2	(257)
CN & W West	19	18	13	10	12	9	10	7	2	(146)
Milwaukee North	18	15	15	13	8	12	10	8	1	(137)
Milwaukee West	14	[12]	17	11	12	14	10	8	2	(90)
Burlington Northern	18	16	16	13	13	9	8	6	1	(131)
Metra Electric	[10]	17	13	[18]	8	11	12	9	2	(70)

*Attribute Legend

A - Frequency of schedules
B - Convenience of schedules
C - Speed of Metra trip
D - Convenience of getting from Metra station to final destination
E - Cost of travel on Metra
F - Comfort of Metra trains
G - Convenience of getting to Metra station
H - Courtesy of Metra personnel
I - Auto parking at Metra station

[ ] = Attributes scores for individual lines that deviate markedly from the average for all lines

ACTION PRIORITIES BASED ON QUADRANT ANALYSIS*

The highest priority for corrective action should be given to increasing the frequency of reverse peak service. Revising schedules to make them more convenient for reverse commuters should also have high priority. These conclusions are based on a Quadrant Analysis of the importance and satisfaction ratings given to nine attributes by reverse commuters who currently use Metra:

QUADRANT ANALYSIS

After being asked to trade off the importance of nine Metra service characteristics, reverse commuters were then asked to rate Metra's performance on each of those characteristics. A four-point verbal scale -- "very good," "good," "fair," and "poor" was used for that purpose. Four quadrants were formed by identifying attributes that lie above or below the median for satisfaction (the horizontal axis) and above or below the median for importance (the vertical axis). Identifying the quadrants in which attributes lie helps establish priorities for corrective action and investment allocation.

1. Leverage opportunity: The upper right-hand quadrant in which service attributes that rank high on both importance and satisfaction are to be found. Attributes in this quadrant offer promotional opportunities. However, they have a low priority for major future increased investment even though they are important, since satisfaction is already high.

* A graphic presentation of the results of the quadrant analysis for each line appears in the charts following this section.

2. Resource transfer opportunity: The lower right-hand quadrant, in which service attributes rank high in satisfaction but low in importance are to be found. The possibility of transferring investment from these attributes should be considered. There is little to lose by doing so since satisfaction is already high and they rank low in importance.

3. Immediate action not required: The lower left-hand quadrant, in which attributes that rank low in both importance and satisfaction. These attributes have a low priority for corrective action, even though satisfaction is low, since they are of limited importance.

4. Action opportunity: The upper left-hand quadrant, in which attributes that are high in importance but low in satisfaction are to be found. Since satisfaction on these important attributes is low, they have top priority for corrective action.

In interpreting the results of this analysis, it should be kept in mind that it applies only to reverse commuters who currently use Metra. Therefore, the analysis provides guidance regarding how to maximize satisfaction amongst them. It does not provide guidance regarding how to attract reverse commuters who use cars or other modes of transportation.

Details of this analysis appear on the following pages.

ALL METRA REVERSE COMMUTERS

Leverage Opportunity quadrant: Two attributes are in this quadrant.

Speed of Metra trip

Convenience of getting from Metra station to final destination

The speed of Metra trips is a theme that offers good promotional opportunities. Convenience of access to final destination, however, probably reflects the fact that so many walk to their place of work. Therefore, this is a good theme to use only for stations close to large employment clusters.

Resource Transfer Opportunity quadrant: Two attributes are in this quadrant.

Comfort of Metra trains

Courtesy of Metra personnel

There is no need to allocate resources to improve comfort. In light of the favorable comments on comfort noted earlier, a slight, temporary decline in comfort might be acceptable if it were associated with a marked improvement in scheduling. No additional funds need to be allocated for improving customer relations, since reverse commuters are now satisfied regarding courtesy.

Immediate Action Not Required quadrant: There are two attributes in this quadrant.

Convenience of getting to Metra station

Auto Park at Metra Station

It should be kept in mind that current reverse commuters are those who have solved the access problem, either by walking or using CTA. If all that is wanted is to retain their patronage, these attributes should have low priority. However, attracting reverse commuters who do not now use Metra may require giving more priority to these two attributes.

Action Opportunity quadrant: There is only one attribute in this quadrant.

Frequency of schedules

In light of the focus group finding that infrequent morning and evening service is a source of dissatisfaction, improving service at those hours should have high priority in the allocation of whatever funds are available.

Two attributes do not fit into any of the quadrants;

"Convenience of schedules" is at the median of satisfaction but ranks high in importance. Given its importance and complaints about inconvenient schedules that were expressed in the focus groups, it should be given consideration as having a relatively high priority for corrective action.

"Cost of travel on Metra" is at the median of importance but ranks low in satisfaction. Though satisfaction is low, it does not merit the highest priority. In fact, some increase might be acceptable if high priority improvements resulted.

When the quadrant positions of attributes for all lines are compared, the following pattern emerges:

1. "Frequency of schedules" is always in the Action Opportunity quadrant.
2. "Speed of Metra trip" is always in the High Leverage quadrant.
3. "Courtesy of Metra personnel" is always in the Resource Transfer Opportunity quadrant.
4. "Auto Park at Metra station" is always very low in the Immediate Action Not Required quadrant.
5. The position of the remaining attributes varies somewhat from line to line.

Line-to-line variations are as follows:

C&NW NORTH LINE

Differences from the overall pattern include:

1. "Convenience of getting to Metra station" shifts out of the Immediate Action Not Required quadrant to a position marginal between "Leverage Opportunity" and "Resource Transfer" quadrants.
2. "Comfort of Metra trains" moves out of the Resource Transfer quadrant into a borderline position.
3. "Convenience of schedules" shifts from a marginal position into the "Leverage Opportunity" quadrant.

C&NW NORTHWEST LINE

The pattern of responses is almost identical with the overall pattern for all lines.

C&NW WEST LINE

The pattern differs only slightly from the overall pattern for all lines.

MILWAUKEE WEST LINE

Differences from the overall pattern for all lines include:

1. "Comfort of Metra trains" shifts into the Leverage Opportunity quadrant.
2. "Frequency of schedules" shifts out of the Action Opportunity quadrant to a marginal position.

3. "Convenience of getting from Metra station to final destination" shifts into the Resource Transfer Opportunity quadrant.

MILWAUKEE NORTH LINE

There are only minor differences from the overall pattern for all lines.

BURLINGTON NORTHERN LINE

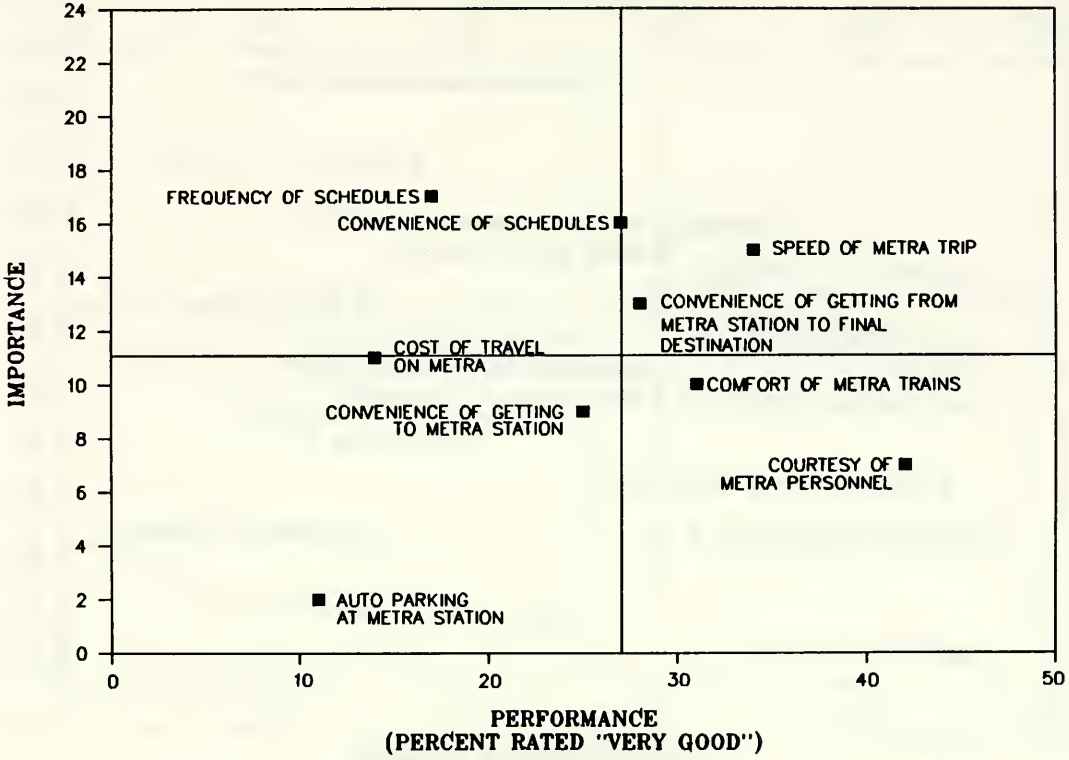
There are only minor differences from the pattern for all lines.

METRA ELECTRIC

Differences from the overall pattern for all lines include:

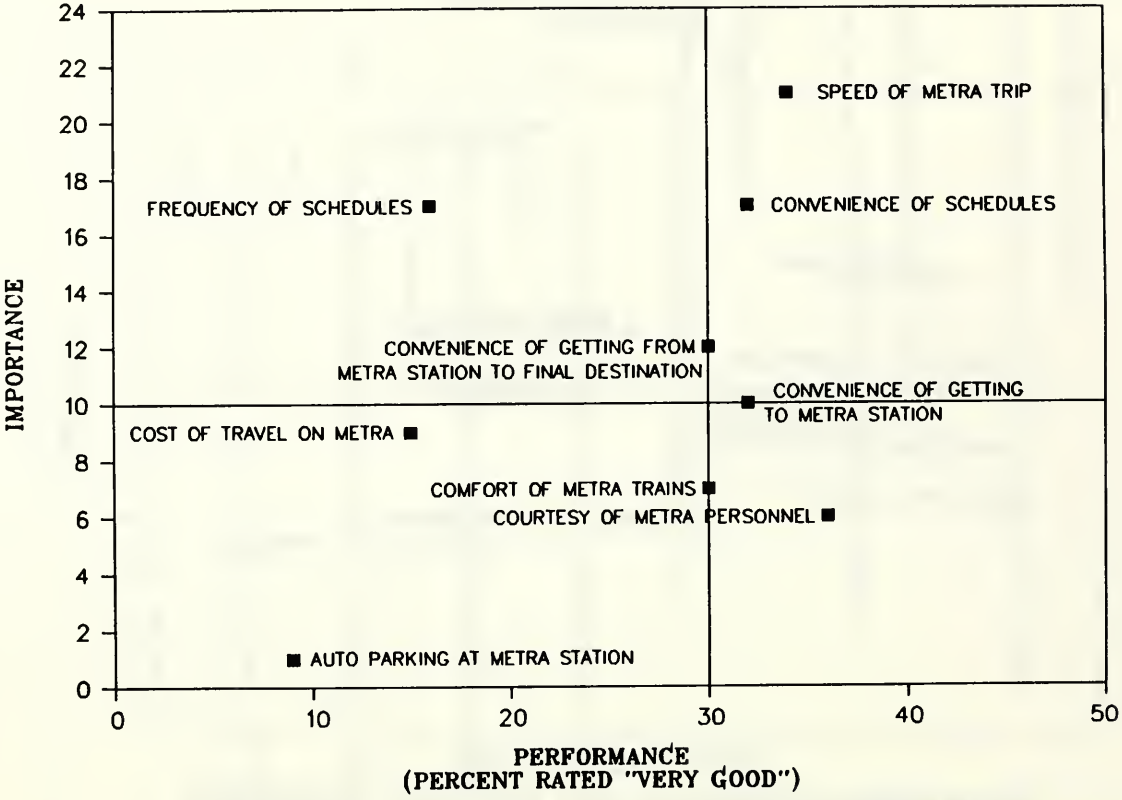
1. "Frequency of schedules" shifts into the Immediate Action Not Required quadrant.
2. "Speed of Metra trip" shifts from Leverage Opportunity quadrant to a marginal position.
3. "Convenience of getting to Metra station" shifts to Action Opportunity quadrant.
4. "Cost of travel on Metra" shifts into Immediate Action Not Required quadrant.

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
ALL METRA LINES



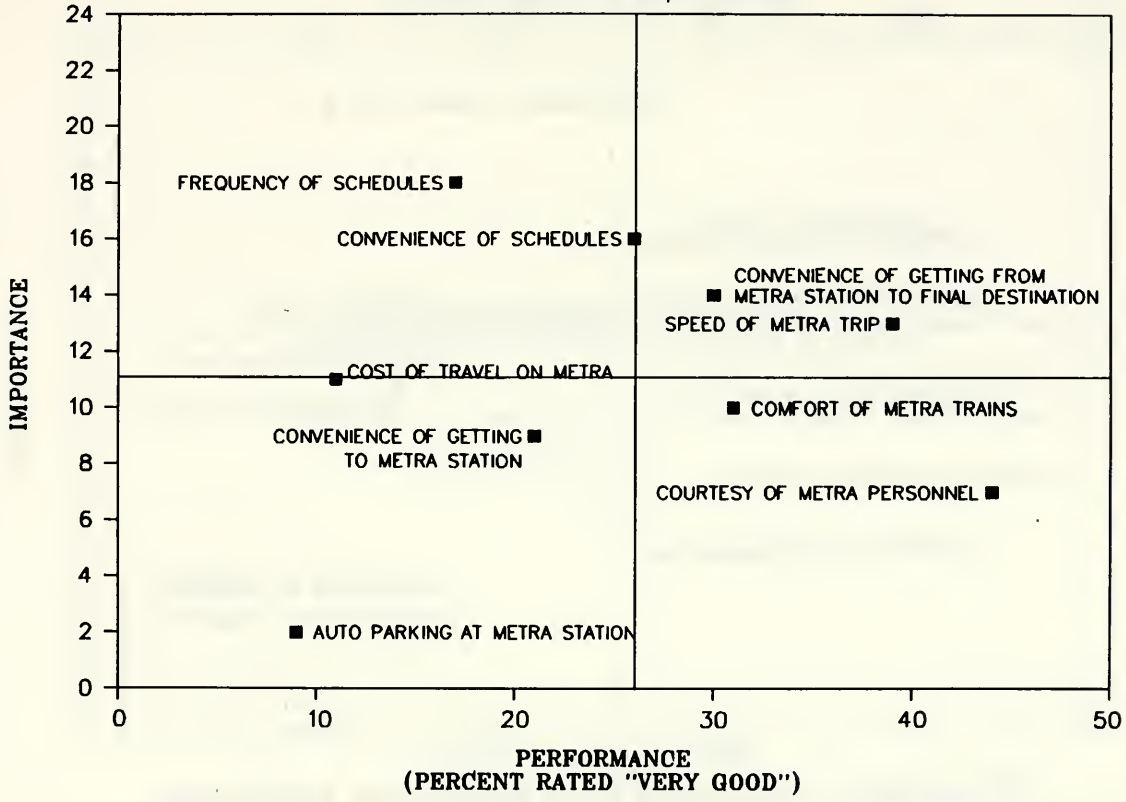
TOTAL RESEARCH CORPORATION

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
C&NW NORTH LINE



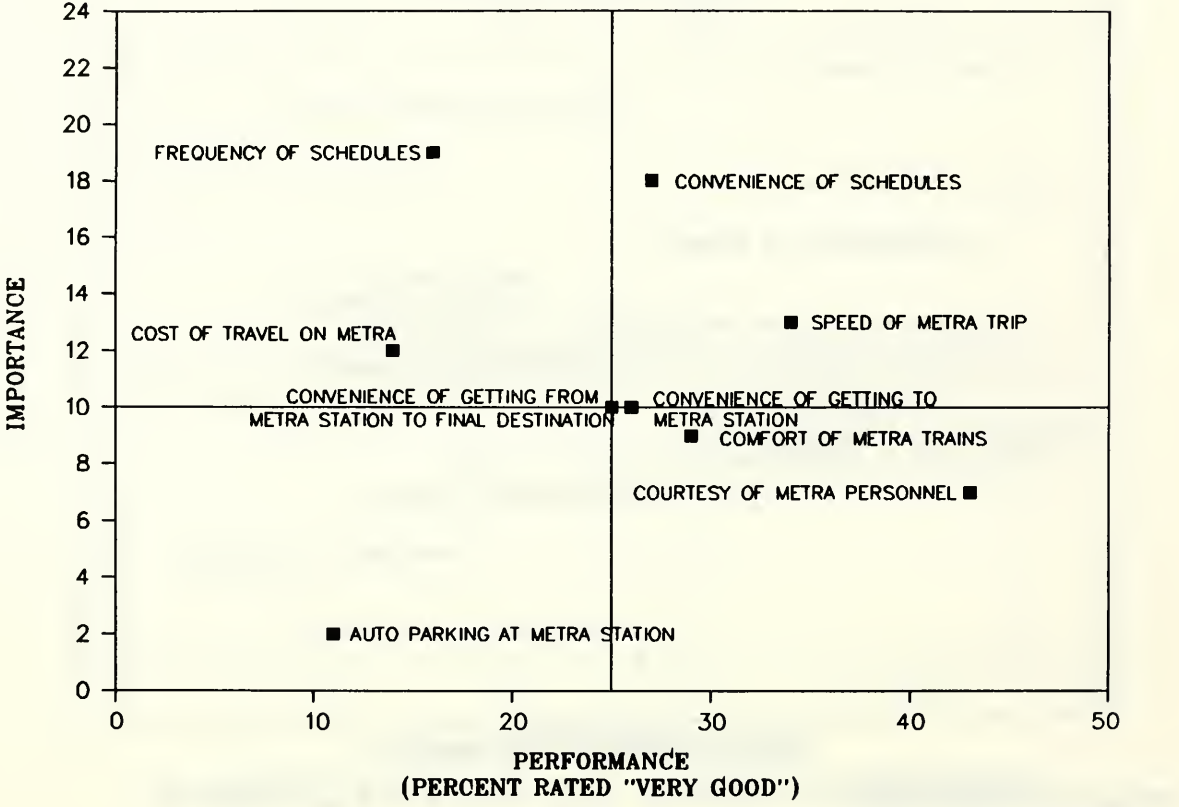
TOTAL RESEARCH CORPORATION

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
C&NW NORTHWEST LINE



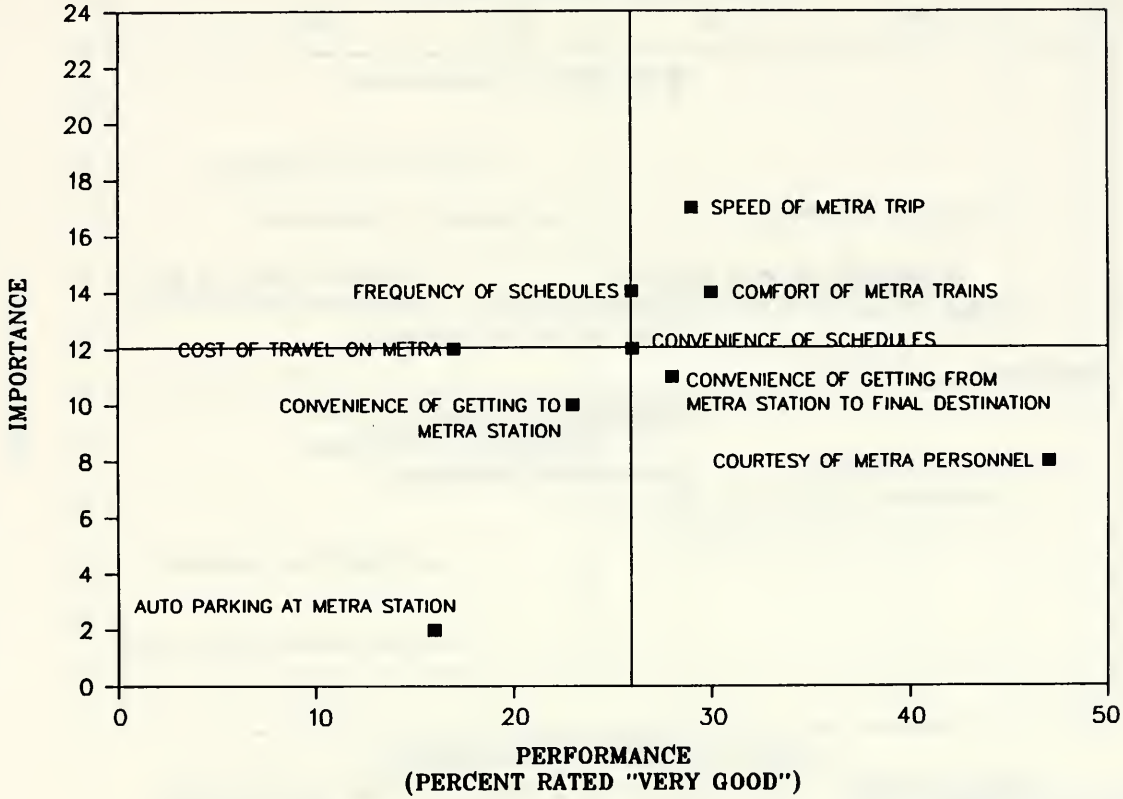
TOTAL RESEARCH CORPORATION

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
C&NW WEST LINE



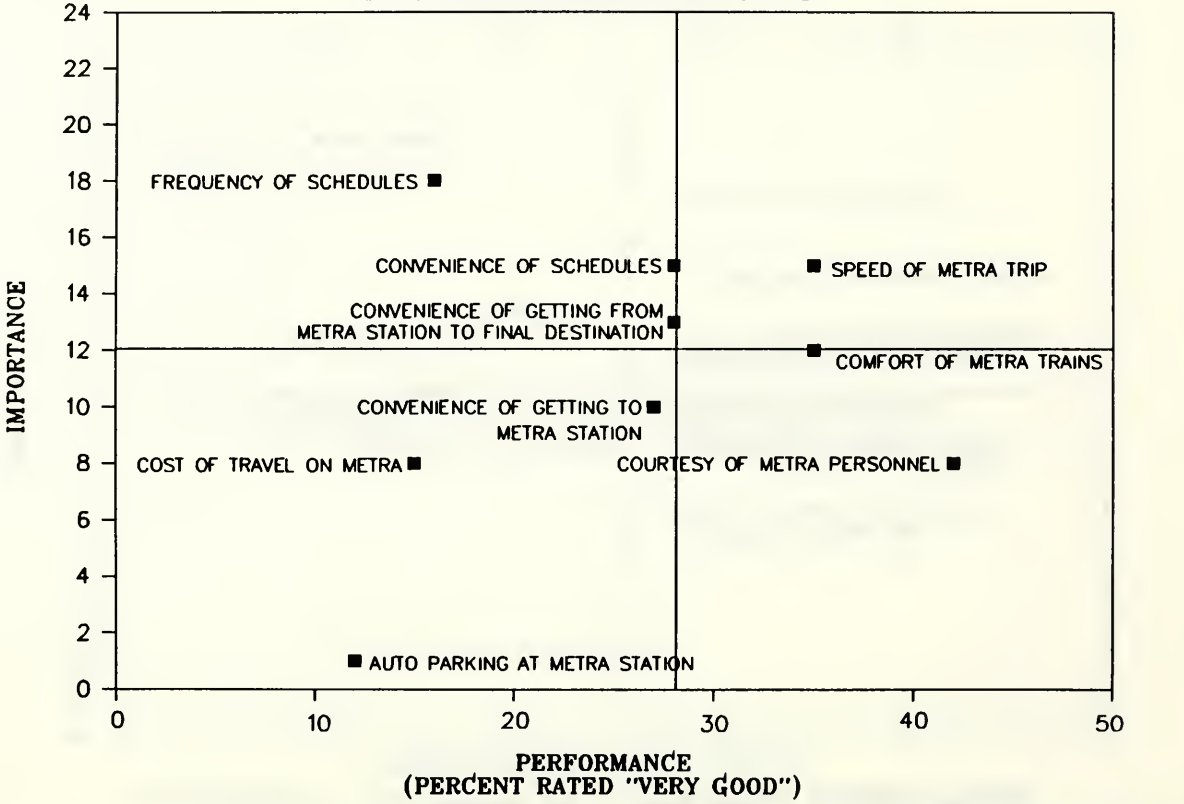
TOTAL RESEARCH CORPORATION

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
MILWAUKEE WEST LINE



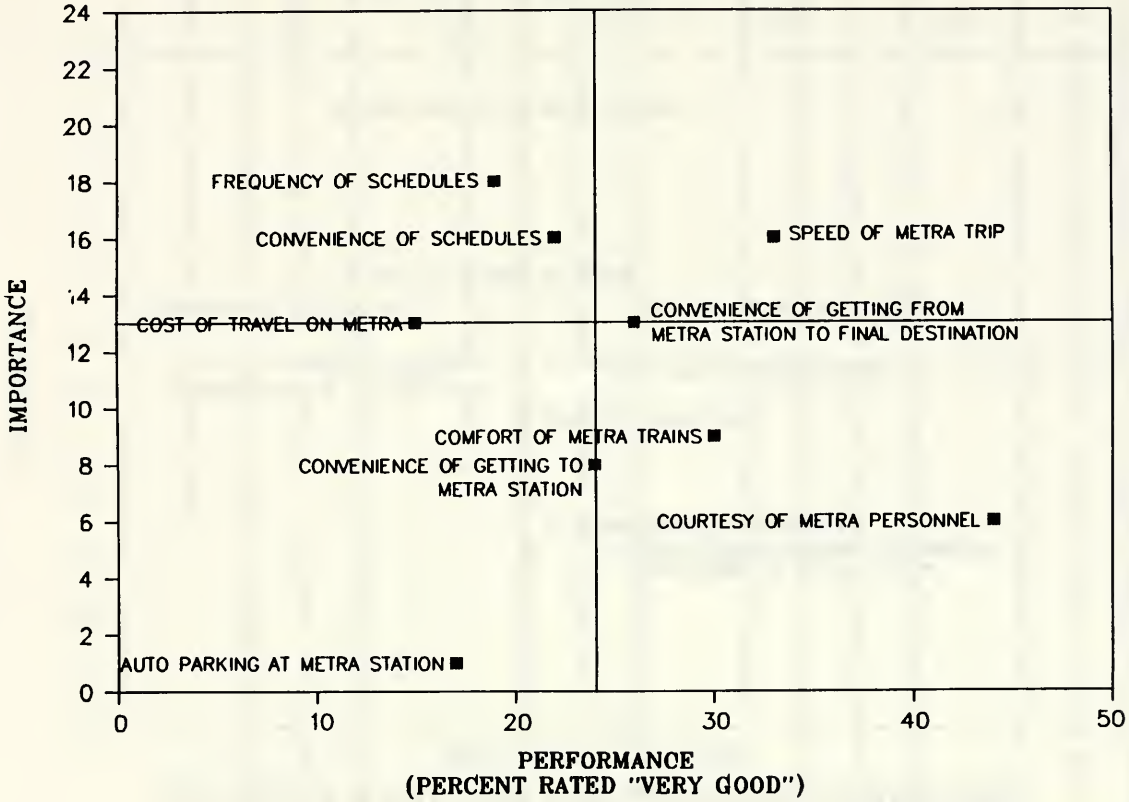
TOTAL RESEARCH CORPORATION

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
MILWAUKEE NORTH LINE



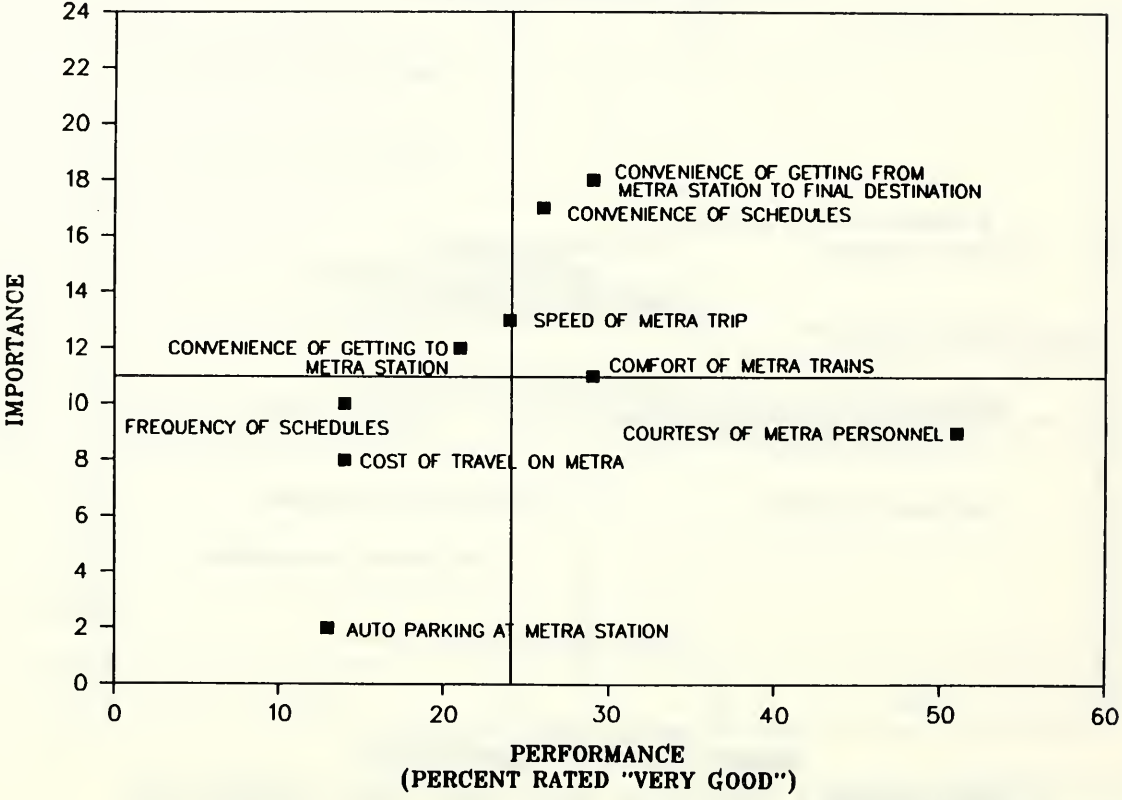
TOTAL RESEARCH CORPORATION

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
BURLINGTON NORTHERN



TOTAL RESEARCH CORPORATION

QUADRANT ANALYSIS FOR REVERSE COMMUTERS
METRA ELECTRIC



TOTAL RESEARCH CORPORATION

FAVORABLENESS OF ATTITUDES TOWARDS PACE AND CTA*

Attitudes of Metra reverse commuters toward Pace and CTA are favorable, with attitudes toward Pace more favorable than attitudes toward CTA. However, almost two-thirds have had experience with CTA compared with two-fifths who have had experience with Pace.

All reverse commuters were asked to rate each transit service for the quality of service it provides on a four point scale -- very good, good, fair or poor. To allow for those who have not had any experience with Pace or CTA, provision was made for a "do not use" response. About two in ten did not record any answer to either the Pace or CTA question.

About as many reverse commuters gave a rating to Pace as indicated they did not use it. Of those who rated Pace, about one-third rated it "very good" for quality of service and a total of three-fourths as "very good" or "good". Low income Metra riders, and those who ride it for short trips, were relatively likely to rate Pace favorably.

Of those who recorded an answer for CTA, about one-fifth indicated they do not use it. Considering only those who rated CTA, one-fifth rated it "very good" for the quality of its service, and a total of three-fifths as "very good" or "good". The higher one's income, the more likely it is that one would give CTA a favorable rating.

* See summary tables at the end of this section.

The fact that Pace is rated more favorably by its users than CTA fits the focus group finding that despite complaints about Pace routing and schedules, reverse commuters who use it are pleased with the quality of its equipment and drivers compared with CTA.

On the other hand, the generally favorable attitude toward CTA is congruent with the hypothesis based on the focus group findings that experience with CTA service established a set of expectations regarding the scope of service that a public transit system should provide.

Attitudes toward Pace and CTA are favorable among reverse commuters who use each Metra line. However, there are some variations within this general pattern.

C&NW NORTH LINE

Pace receives much higher ratings than CTA on the quality of its service.

Among North Line riders who rated Pace service, somewhat less than half rated it "very good". This proportion is higher than among riders of any other line. When combined with the "good" ratings, a total of eight out of ten rated Pace favorably.

Somewhat over half indicated they use CTA. This is the smallest proportion of indicated users among the seven lines. Considering only those who rated CTA, one-fifth rated it "very good" for the quality of its service. A total of three-fifths rated it either "very good" or "good".

C&NW NORTHWEST LINE

Attitudes of the Northwest Line's reverse commuters toward Pace and CTA are generally favorable.

Of those who rated Pace, over one-fourth rated the quality of its service as "very good".

CTA ridership is high among these reverse commuters and one-fifth give CTA a "very good" rating for quality of service. A total of three-fifths rate it a combined "very good" or "good".

C&NW WEST LINE

As with all the lines, the reverse commuters on this line have favorable attitudes toward Pace and CTA.

Pace raters give the lowest proportion of "very good" ratings for the quality of service, with less than two in ten giving a "very good" rating. Improvement occurs when the top two scores are combined, resulting in seven in ten rating Pace favorable.

Considering only those who rated CTA, about one-fifth rated it "very good" for the quality of its service, and a total of three-fifths as "very good" or "good". Usage of CTA is very high among West Line reverse commuters.

MILWAUKEE DISTRICT/NORTH LINE

Favorable attitudes toward Pace and CTA are generally expressed by this line's reverse commuters. Pace receives relatively more favorable ratings for its quality of service. Also, the proportion of reverse commuters who did not answer the Pace and CTA questions is among the highest of the lines.

Almost one-half of these reverse commuters rate their Pace experience as "very good". Combining the top two ratings, almost three-fourths rate Pace as "very good" or "good".

CTA favorable attitudes are lower than for those of Pace. About two in ten reverse commuters give a "very good" rating to CTA. Five in ten give "very good" and "good" ratings.

MILWAUKEE DISTRICT/WEST LINE

The attitudes toward Pace and CTA held by the reverse commuters of this line are favorable, with attitudes towards Pace being much more favorable.

Those who indicated they use Pace rated it highly. About three in ten of the reverse commuters gave Pace's service a rating of "very good" and over half gave it a "good rating". Relatively few gave Pace an unfavorable rating.

CTA ratings for quality of service received the highest proportion (one-fourth) of "very good" from the Milwaukee West Line reverse commuters. Another one-third gave CTA a "good" rating on its quality of service.

BURLINGTON NORTHERN

Pace and CTA are rated favorably to a comparable degree by this line's passengers.

About one-fourth of these reverse commuters give Pace a "very good" rating. When combined with the "good" ratings, total favorable ratings is a little less than three-fourths. Pace usage is reported by almost half the reverse commuters of this line.

Seven out of ten Burlington Northern reverse commuters indicate experience with CTA services. About one-fourth of them rate CTA's quality of service as "very good" and another one-half of them give CTA a "good" rating.

METRA ELECTRIC

This line's passengers give favorable ratings to Pace and mixed ratings to CTA on quality of service.

Most of the riders of this line's reverse commute trains do not use Pace transportation. Those that do use it, however, rate it high in quality of service (almost one-third gave a "very good" rating). After combining "very good" and "good" ratings, almost three-fourths of the University Park Line reverse commuters rate Pace favorably.

CTA usage is very high among these respondents. About seven in ten use CTA transportation. Few (about one in ten) give CTA a "very good" rating on service quality. The bulk of its ratings are "good", so that in total about one-half of the Metra Electric reverse commuters rate CTA favorably.

FAVORABLENESS OF ATTITUDES TOWARDS PACE

Number of Respondents:	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
PACE								
Usage								
Use Pace	41	44	37	47	39	38	47	33
Do Not Use Pace	37	33	42	40	31	44	31	41
No Answer	21	23	21	12	29	18	21	26
Rating of Pace by Users								
Number of Respondents Using Pace	(449)	(104)	(95)	(69)	(54)	(34)	(62)	(23)
	%	%	%	%	%	%	%	%
Very Good	32	44	28	16	43	29	26	30
Good	42	38	39	57	30	56	44	43
Fair	17	10	23	19	17	12	19	26
Poor	9	8	9	9	11	3	11	--

FAVORABLENESS OF ATTITUDES TOWARDS CTA

Number of Respondents:	All Reverse Commuters (1084)	C&NW N (236)	C&NW NW (257)	C&NW W (146)	Milw N (137)	Milw W (90)	BN (131)	Elec. ML (70)
	%	%	%	%	%	%	%	%
CTA								
Usage								
Use CTA	64	56	63	69	61	68	70	69
Do Not Use CTA	17	17	20	16	15	17	9	19
No Answer	20	27	17	14	25	16	21	13
Rating of CTA by Users								
Number of Respondents Using Pace	(690)	(132)	(161)	(101)	(83)	(61)	(92)	(48)
	%	%	%	%	%	%	%	%
Very Good	20	23	21	20	18	26	21	13
Good	39	36	39	39	36	33	47	44
Fair	30	27	29	32	37	34	27	35
Poor	10	14	11	10	8	7	5	8

TECHNICAL APPENDIX

TOTAL RESEARCH CORPORATION

PAIRWISE TRADEOFF ANALYSIS (COMPASS™)

In determining the importance of different service dimensions to reverse commuters, conventional importance scales fail to provide the necessary level of discrimination. When asked, "How important is..., very important, somewhat important, not very important, or not at all important?", typically respondents rate most attributes as at least somewhat important and often rate more than one as "very important." Also, it is impossible to determine from such data how much more important any one attribute is in comparison with the others.

To deal with the above problems, the COMPASS™ multiple paired comparison technique was utilized. Passengers were asked a series of paired comparisons that involved trading off each attribute against all others. Specifically, passengers were presented with a series of paired quality of service statements that read:

> Listed below are pairs of characteristics that many commuters consider important when travelling on Metra. Which one in each pair is more important to you...
>
> Speed of Metra trip OR Convenience of getting to Metra station?
>
> etc.

To limit the number of comparisons to be made to a reasonable amount, each commuter was asked to trade off nine paired characteristics. An experimental design was used to create four sets of nine characteristics that encompass all possible pairings.

The nine characteristics were:

- Convenience of schedules
- Frequency of schedules
- Speed of the Metra trip
- Cost of travel on Metra
- Comfort of Metra trains
- Courtesy of Metra personnel
- Auto park at Metra stations
- Convenience of getting to Metra station
- Convenience of getting from Metra station to final destination

Results of this task enable Total Research to asses a characteristic's relative importance compared to other traded off characteristics of the Metra commute.

The reader should note that the trade-off exercise was a difficult one for some respondents who answered only a few of the paired statements and left others blank. Total Research, in order to provide the most stable, reliable data, did not process the COMPASS data from those respondents.

The Total Research proprietary technique COMPASS results in a sensitive discrimination among the attributes tested. Also, COMPASS score are ratio-scaled, so that a score of "18" is twice as important as a score of "9" and a score of "12" is three times as important to the reverse commuter as an attribute with a score of "4".

Regional Transportation Authority

CANW NW
May, 1991

Dear Customer:

The Regional Transportation Authority and Metra appreciate your patronage and value your opinions. To improve our service to you and other commuters, we'd like you to complete this brief questionnaire. The information obtained from the questionnaire will assist us in meeting our commitment to you to provide efficient and cost effective transportation.

Please take a few minutes now to fill out the questionnaire. The person who handed it to you will collect it before you get off this morning's train.

Thank you for your cooperation. If you can't fill out the questionnaire now, please take it with you, complete it, fold it so the address is on the outside, and mail it. Postage has been prepaid so no stamp is required.

Sincerely,

Laura A. Jibben

Laura A. Jibben
Executive Director

---

cta Metra pace

ABOUT THIS TRIP

1. At what Metra Station will you be getting off? (CHECK BOX)

(7-8)	☐ Park Ridge	☐ Palatine		(5-2)
	☐ Dee Road	☐ Barrington		(6-1)
	☐ Des Plaines	☐ Fox River Grove		
	☐ Cumberland	☐ Cary		
	☐ Mount Prospect	☐ Crystal Lake		
	☐ Arlington Heights	☐ Woodstock		
	☐ Arlington Park	☐ McHenry		
		☐ HARVARD		

☐ NONE OF THE ABOVE -> STOP HERE AND RETURN YOUR QUESTIONNAIRE

2. At what Metra Station did you board? (CHECK BOX)

(9-10)	☐ CHICAGO (MADISON ST.)	
	☐ Clybourn	☐ Gladstone Park
	☐ Irving Park	☐ Norwood Park
	☐ Jefferson Park	☐ Edison Park

☐ NONE OF THE ABOVE -> STOP HERE AND RETURN YOUR QUESTIONNAIRE

Your name will be entered in a drawing for a free Metra Ten Ride Pass if you complete the following questionnaire.

3a. How do you normally get to the Metra Station where you boarded this train? (CHECK BOX UNDER a. BELOW)

3b. How do you normally get to your final destination after you get off this train at that station? (CHECK BOX UNDER b. BELOW)

	a. How You Get to Metra	b. How You Get to Destination	
(11)	☐	(13) ☐	WALK
	☐	☐	CTA BUS
	☐	☐	CTA RAIL
	☐	☐	DROPPED OFF/PICKED UP IN CAR BY SOMEONE ELSE
	☐	☐	DRIVE AND PARK CAR MYSELF
	☐	☐	BICYCLE OR MOTORCYLE
	☐	☐	TAXI
(12)	☐	(14) ☐	OTHER - PLEASE SPECIFY:_____

4. Did you start this trip at your home? (15) ☐ YES ☐ NO (CHECK BOX)

5. What is your home address?

STREET NO. AND NAME:_____(16-18)
No. Name Ave, St, Rd, etc.
(PLEASE INDICATE NORTH, SOUTH, EAST OR WEST)

CITY OR TOWN:_____(19-21)

ZIP CODE: ____ ____ ____ ____ ____ (22-26)

6. What is the address or location of your final destination?

STREET NO. AND NAME:_____(27-29)
No. Name Ave, St, Rd, etc.
(PLEASE INDICATE NORTH, SOUTH, EAST OR WEST)

CITY OR TOWN:_____(30-32)

ZIP CODE: ____ ____ ____ ____ ____ (33-37)

7. How long does it normally take you to travel from the beginning of your trip until your final destination; for example, from the time you leave home until you reach work? (CHECK BOX)

(38)
- ☐ UNDER 30 MINUTES
- ☐ 30 MINUTES TO AN HOUR
- ☐ MORE THAN AN HOUR BUT LESS THAN 1 1/2 HOURS
- ☐ 1 1/2 HOURS TO 2 HOURS
- ☐ MORE THAN TWO HOURS

8. How frequently do you make this trip on Metra? (CHECK BOX)

(39)
- ☐ EVERYDAY, MONDAY THROUGH FRIDAY
- ☐ 5 DAYS A WEEK, BUT INCLUDING WEEKENDS
- ☐ THREE OR FOUR DAYS A WEEK
- ☐ ONE OR TWO DAYS A WEEK
- ☐ LESS OFTEN
- ☐ THIS IS ONLY TIME I'LL BE MAKING TRIP
- ☐ OTHER - PLEASE SPECIFY:_____

9. People who buy a monthly Metra pass are entitled to buy a Link-up pass for an additional $36. This Link-up pass, when shown with a monthly Metra pass, enables unlimited use of Pace and CTA services for a month. Did you buy a Link-up pass for this month? (CHECK BOX)

(40) ☐ YES ☐ NO

10. What type of pass or ticket did you use for this Metra trip and how much did it cost you? (CHECK BOX, THEN WRITE IN COST)

	TYPE	COST
(41)	☐ MONTHLY PASS	$_____ (42-45)
	☐ WEEKLY PASS	$_____ (46-49)
	☐ TEN-RIDE TICKET	$_____ (50-53)
	☐ ONE-WAY TICKET	$_____ (54-57)

11. For how long have you been using Metra to get to today's destination? (CHECK BOX)

(58)
- ☐ A WEEK OR LESS
- ☐ MORE THAN A WEEK BUT LESS THAN A MONTH
- ☐ MORE THAN A MONTH BUT LESS THAN A YEAR
- ☐ A YEAR OR MORE

12a. In the future do you expect to continue using Metra to get to today's destination? (CHECK BOX)

(59)
- ☐ YES —> ANSWER Q.12b
- ☐ NO —> PLEASE SKIP TO Q.13

12b. For how long do you expect to continue using Metra? (CHECK BOX)

(60)
- ☐ A WEEK OR LESS
- ☐ MORE THAN A WEEK BUT LESS THAN A MONTH
- ☐ MORE THAN A MONTH BUT LESS THAN A YEAR
- ☐ A YEAR OR MORE

PURPOSE OF THIS TRIP

13. What is the purpose of this trip? (CHECK BOX)

(61)
- ☐ GO TO WORK/JOB —> GO TO Q.14
- ☐ ATTEND SCHOOL AS STUDENT
- ☐ PERSONAL - FOR BUSINESS PURPOSE
- ☐ PERSONAL - FOR PLEASURE PURPOSE —> PLEASE SKIP TO Q.18
- ☐ OTHER - PLEASE SPECIFY:_____

_____

14. Does your employer pay for part or all of your transportation cost? (CHECK BOX)

(62)
- ☐ YES
- ☐ NO

15. In what type of facility do you work? (CHECK BOX)

(63)
- ☐ PRIVATE RESIDENCE
- ☐ MANUFACTURING PLANT
- ☐ RETAIL, DEPARTMENT STORE
- ☐ HOTEL/MOTEL/RESTAURANT
- ☐ MULTI-STORY OFFICE BUILDING
- ☐ SMALL OFFICE BUILDING
- ☐ HOSPITAL
- ☐ SCHOOL OR COLLEGE
- ☐ CONSTRUCTION SITE
- ☐ OTHER - PLEASE DESCRIBE:_____

16. For how long have you been working there? (CHECK BOX)

(64)
- ☐ LESS THAN 6 MONTHS
- ☐ SIX MONTHS UP TO ONE YEAR
- ☐ ONE YEAR UP TO TWO YEARS
- ☐ TWO YEARS UP TO FIVE YEARS
- ☐ FIVE YEARS UP TO NINE YEARS
- ☐ TEN YEARS OR MORE

65-78 SKIP
79-80 01

17a. Is there a car available for you to commute to work if you wanted to? (CHECK BOX)

(5) ☐ YES —> ANSWER Q.17b
☐ NO —> PLEASE SKIP TO Q.18

17b. Why do you take Metra instead? (WRITE YOUR ANSWER)

(6-7) (8-9)
_____
(10-11) (12-13)
_____

YOUR OPINION OF METRA

18. What do you like best about travelling on Metra? (WRITE YOUR ANSWER)

(14-15) (16-17)
_____
(18-19) (20-21)
_____

19. What do you like least about travelling on Metra? (WRITE YOUR ANSWER)

(22-23) (24-25)
_____
(26-27) (28-29)
_____

20. Listed below are pairs of characteristics that many commuters consider important when (30-1) traveling on Metra. Which one in each pair is more important to you? Make a choice between the two on each line, even if neither one is important to you. (PLEASE CIRCLE ONE PHRASE ON EACH LINE)

(31-32)	03	Speed of Metra trip	OR	Cost of travel on Metra	04
(33-34)	06	Courtesy of Metra personnel	OR	Auto parking at Metra stations	07
(35-36)	09	Convenience of getting from Metra station to final destination	OR	Convenience of schedules	01
(37-38)	04	Cost of travel on Metra	OR	Comfort of Metra trains	05
(39-40)	07	Auto parking at Metra stations	OR	Convenience of getting to Metra station	08
(41-42)	02	Frequency of schedules	OR	Speed of Metra trip	03
(43-44)	05	Comfort of Metra trains	OR	Courtesy of Metra personnel	06
(45-46)	08	Convenience of getting to Metra station	OR	Convenience of getting from Metra station to final destination	09
(47-48)	01	Convenience of schedules	OR	Frequency of schedules	02

21. How do you rate your experience regarding each of the following characteristics of traveling on Metra? (PLEASE CHECK ONE BOX FOR EVERY STATEMENT)

	Very Good	Good	Fair	Poor	
a. Convenience of schedules?	☐	☐	☐	☐	(49)
b. Frequency of schedules?	☐	☐	☐	☐	(50)
c. Speed of Metra trip?	☐	☐	☐	☐	(51)
d. Cost of travel on Metra?	☐	☐	☐	☐	(52)
e. Comfort of Metra trains?	☐	☐	☐	☐	(53)
f. Courtesy of Metra personnel?	☐	☐	☐	☐	(54)
g. Auto Park at Metra stations?	☐	☐	☐	☐	(55)
h. Convenience of getting to Metra station?	☐	☐	☐	☐	(56)
i. Convenience of getting from Metra station to final destination?	☐	☐	☐	☐	(57)

(GO TO NEXT PAGE)

22. How do you rate the quality of service provided by: (CHECK A BOX FOR EAC

	Do Not Use	Very Good	Good	Fair	Poor	
a. Pace?	☐	☐	☐	☐	☐	(5
b. CTA?	☐	☐	☐	☐	☐	(5

Thank you for your help. Please tell us a few things about yourself to help us insu that our survey represents all groups of riders.

23. Are you: ☐ MALE (6
☐ FEMALE

24. Are you: ☐ HISPANIC (6
☐ BLACK/AFRICAN-AMERICAN
☐ WHITE
☐ ASIAN
☐ AMERICAN INDIAN
☐ OTHER - PLEASE SPECIFY:_____

25. What is your age?

(62) ☐ UNDER 18 ☐ 35 - 44
☐ 18 - 24 ☐ 45 - 64
☐ 25 - 34 ☐ 65 OR OVER

26. What is the total annual income, before taxes, of all members of your family who li with you?

(63) ☐ UNDER $10,000 ☐ $40,001 - $55,000
☐ $10,001 - $25,000 ☐ OVER $55,000
☐ $25,001 - $40,000

27. This space is available for whatever comments you wish to write about your wor commute experience:

_____(64-6
_____(66-67
_____(68-6
_____(70-71
_____(72-73

☐ ENTER MY NAME IN A DRAWING FOR A PRIZE OF ONE 10-RIDE TICKET (CHECK BOX TO ENTER) (74
(75-78
79-80 02

Please let us know how we may get in touch with you if you have won.

Name:_____

Daytime phone:(_____)_____ (5-14) Evening phone:(_____)_____ (15-24)

25-78 SKIP
79-80 03

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Reverse Commuters
Moderator's Guide - Post-Survey Discussion

- Use Public Transportation -

Introduction: This study is about what is often called reverse commuting, that is, living in Chicago and traveling to the suburbs to work. I believe all of you are reverse commuters and that you use Metra or PACE. Is that correct?

A. Attitudes regarding reverse commuting:

1. How did you first happen to start reverse commuting?

2. How do you like reverse commuting? Why?

3 Do you prefer to live in the city or in the suburbs, regardless of where you work? Why?

4. Do you prefer to work in the suburbs or in the city, regardless of where you live? Why?

5. What combination of where to live -- city or suburb -- and where to work -- city or suburb -- do you think is best? Why?

B. Current reverse commuting behavior

1. How long have you been commuting using Metra/PACE/CTA? Why?

2. How many days a week do you commute?

3. How long does your trip take, each way? Why?

4. How do you get to the Metra station or PACE stop from home?

5. How do you get to your place of work from the Metra station or PACE stop?

6. Do you have to make any transfers? How many? Are they convenient or inconvenient?

C. Attitudes regarding commuting by Metra/PACE/CTA

1. Why do you think some reverse commuters prefer to commute by car? Any other reasons?

2. What are the advantages to you of using Metra/PACE/CTA to commute?

3. What are the disadvantages to you of using Metra/PACE/CTA to commute?

4. Since you first started using public transit to get to work, has commuting by Metra/PACE been getting better or worse for you? In what ways?

   a. Hassle free?

   b. Personal security?

   c. Cost?

   d. Dependability?

   e. Length of trip? (in time)

5. What if, for some reason, it became very difficult for you to continue commuting by Metra/PACE/CTA to where you now work? What would you do in that case?

   a. Commute by car?

   b. Move close to where you work?

   c. Look for a job close to where you live?

   d. Look for a job that you could get to by car?

   e. Other?

D. Experience with and knowledge of PACE and Metra

1. Other than commuting to work, do you ever use Metra or CTA or PACE? For what purposes? How often?

2. Do you feel that you have a pretty good sense of how to use Metra or PACE to travel in the Chicago area to places other than where you work, or would it take you a while before you would really know your way around by Metra or PACE?

   a. How familiar are you with the different lines and routes? Transfer points?

b. Where to buy tickets and how much they cost?

c. If you didn't know, what would you do to find out?

d. How interested are you in becoming more familiar than you now are with how to use Metra/PACE/CTA to get around the Chicago area? Why?

3. How do you think commuting by Metra/PACE/CTA to where you work would compare with commuting by car?

- Physical comfort
- Psychological relaxation
- Convenience
- Cost
- Length of trip

E. Fares and costs

1. What type of ticket or pass do you buy to ride Metra/PACE/CTA?

2. What other types of tickets or passes are available to you? Why don't you use them?

3. About how much a month does it cost you to get to work and home? How do you think that compares with what it would cost if you drove?

4. Do you think you get your money's worth using Metra/PACE/CTA?

5. Have you ever heard of or used a Link-up pass? What do you think of it?

a. Only people who buy a monthly Metra pass are entitled to buy a Link-up pass, for an additional $36. This Link-up pass, when shown with a monthly Metra pass, gives them unlimited use of PACE and CTA services for that month. Do you think the $36 would be worth it for someone like yourself?

6. Have you ever heard of a government program under which employers pay part of their employees' commuting costs? Do you know of any employers who participate in this program?

F. Inducements to continue using Metra and/or PACE and/or CTA

1. How much of a need do you think there is for improving public transit (Metra/PACE/CTA) services for reverse commuters? Why do you feel that way?

2. What improvements or changes do you think are most needed?

   a. Service enhancements

      - Express train or bus service
      - More frequent trains or buses
      - More convenient ways of getting from home to Metra station or PACE stop
      - More convenient ways of getting from Metra station or PACE stop to place of work
      - Better designed transfer points

   b. Employer enhancements

      - Flex time so that you can adjust working hours to train/bus schedules
      - Employer pays part of commuting costs
      - Employer provides shuttle service to Metra station or PACE stop

Reverse Commuters
Moderator's Guide - Post-Survey Discussion

- Use Private Transportation -

Introduction: This study is about what is often called reverse commuting, that is, living in Chicago and traveling to the suburbs to work. I believe all of you are reverse commuters and that you drive. Is that correct?

A. Attitudes regarding reverse commuting:

1. How did you first happen to start reverse commuting?

2. How do you like reverse commuting? Why?

3 Do you prefer to live in the city or in the suburbs, regardless of where you work? Why?

4. Do you prefer to work in the suburbs or in the city, regardless of where you live? Why?

5. What combination of where to live -- city or suburb -- and where to work -- city or suburb -- do you think is best? Why?

B. Current reverse commuting behavior

1. Do you commuter alone, in a car pool, or something else? Why?

2. How long have you been commuting that way? Why?

3. How many days a week do you commute?

4. How long does your trip take, each way?

C. Attitudes regarding commuting by car

1. Why do you think some reverse commuters prefer to commute by Metra, PACE or CTA? Any other reasons?

2. What are the advantages to you of using a car to commute?

3. What are the disadvantages to you of using a car to commute?

4. In the past few years, has commuting by car been getting better or worse for you? In what ways?

   a. Hassle free?

   b. Personal security?

   c. Cost?

   d. Dependability?

   e. Length of time of commuting trip?

5. What if, for some reason, it became very difficult for you to continue commuting by car to where you now work? What would you do in that case?

   a. Use public transit to commute to your present job?

   b. Move close to where you work?

   c. Look for a job close to where you live?

   d. Look for a job that you could get to by public transit?

   e. Other?

D. Experience with and knowledge of PACE, Metra, and CTA

1. Thinking about traveling in the Chicago area other than going to work, do you ever use Metra, PACE, or CTA? For what purposes? How often?

2. Do you feel that you have a pretty good sense of how to use Metra, PACE, or CTA to travel in the Chicago area if you had to, or would it take you a while before you would really know your way around by Metra, PACE or CTA?

   a. How familiar are you with the different lines and routes? Transfer points?

   b. Where to buy tickets and how much they cost?

   c. If you didn't know, what would you do to find out?

   d. How interested are you in becoming more familiar with how to use Metra, PACE or CTA to get around the Chicago area? Why?

3. Do you ever use PACE, Metra or CTA to get to work?

IF YES:

a. Under what circumstances?

b. How often does that happen?

c. How long does it take when you do?

d. How do you get to the Metra station or PACE stop?

e. Do you have to make any transfers? How many?

f. How do you get from the Metra station or PACE stop to where you work?

IF NO:

g. Suppose your car weren't available and you had to use Metra, PACE or CTA to get to work? How would you get to the Metra line or PACE route that you would have to take?

h. Would you have to make any transfers? How many?

i. When you got off the train or bus, how would you get to where you work?

j. How long do you think the trip would take by Metra/PACE?

EVERYONE:

4. How do you think commuting by CTA, Metra or PACE to where you work would compare with commuting by car?

- Physical comfort
- Psychological relaxation
- Convenience
- Cost
- Length of trip

E. Fares and costs

1. Do you know what kind of reduced fare tickets are available on Metra? on PACE? on CTA?

2. Metra, PACE, and CTA all have monthly passes. Also, Metra has a weekly pass and a ten trip ticket. Which, if any, of these reduced fare tickets would you be most likely to use if you used Metra or PACE?

3. Do you know how much it would cost you to commute to work either by Metra or PACE, or a combination of CTA with Metra or PACE?

4. Do people who use Metra, PACE or CTA to commute to work get their money's worth?

5. Have you ever heard of or used a Link-up pass? What do you think of it?

    a. Only people who buy a monthly Metra pass are entitled to buy a Link-up pass, for an additional $36. This Link-up pass, when shown with a monthly Metra pass, gives them unlimited use of PACE and CTA services for that month. Do you think the $36 would be worth it for someone like yourself if you used Metra to get to work?

F. Inducements to continue using Metra and/or PACE

1. How much of a need do you think there is for improving public transit (Metra/PACE/CTA) services for reverse commuters? Why do you feel that way?

2. What improvements or changes do you think would be most likely to get people like yourself to be willing to try using Metra or PACE to commute to work?

3. Under what conditions would you be willing to try using Metra or PACE to commute to work?

    a. Service enhancements

        - Express train or bus service

        - More frequent trains or buses

        - More convenient ways of getting from home to Metra station or PACE stop

        - More convenient ways of getting from Metra station or PACE stop to place of work

        - Better designed transfer points

        - Improved coordination of Metra with PACE/CTA routes and schedules

b. Employer enhancements

- Flex time so that you can adjust working hours to train/bus schedules
- Employer pays part of commuting costs
- Employer provides shuttle service to Metra station or PACE stop

Reverse Commuters
Moderator's Guide - Pre-Survey Discussion

- Use Public Transit -

Introduction: This study is about what is often called reverse commuting, that is, living in Chicago and traveling to the suburbs to work. I believe all of you are reverse commuters. Is that correct?

A. Preference between living in the city and working in the suburbs

1. How long have you been a reverse commuter?

2. How long have you been commuting to your current job?

3 How did you first happen to start reverse commuting?

4. Do you prefer to live in the city, regardless of where you work? Why?

5. Do you prefer to work in the suburbs, regardless of where you live? Why?

6. Which combinations is best, and why?

   a. Living and working in the city?

   b. Living and working in the suburbs?

   c. Living in the city and working in the suburbs?

   d. Living in the suburbs and working in the city?

B. Reverse commuting behavior

1. How do you travel to work and back home?

   - Do you have to make any transfers? Between what? How many?

   - What is the total length of the trip each way?

2. How long have you been travelling this way? Why?

3. Have you ever used or considered other ways of commuting to the suburbs? Why?

4. Are there any alternatives now available to you? Why don't you use them?

C. Faces and cost

1. How do you pay for your commute to work?

   a. Monthly ticket
   b. Weekly ticket
   c. Ten ride ticket
   d. One-way ticket

2. About how much does that cost you each month?

3. Compared with what it would cost you if you commuted some other way, do you think you get good value for the money you spend? Why do you feel that way?

4. Do you think the system of monthly, weekly, and ten ride passes is fair? Why do you feel that way?

D. Attitudes regarding public transit

1. What are the advantages to you of using public transportation for your commute?

2. What are the disadvantages to you of using public transportation for your commute?

3. How do you rate public transportation vs. other modes, such as cars, with regard to:

   a. Length of trip
   b. Convenience
   c. Comfort
   d. Privacy
   e. Cost
   f. Personal security
   g. Restfulness and physical effort
   h. Anything else?

E. Trends

1. Has public transportation been getting better or worse for reverse commuters? In what ways?

2. Compared with commuting by private car, has using public transportation become more desirable or less desirable over the past few years? In what ways?

   a. Frequency of service?
   b. Reliability of service?
   c. Personal security?
   d. Quality of personnel?
   e. Fare structure?

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Reverse Commuters
Moderator's Guide - Pre-Survey Discussion

- Use Private Transportation -

Introduction: This study is about what is often called reverse commuting, that is, living in Chicago and traveling to the suburbs to work. I believe all of you are reverse commuters. Is that correct?

A. Attitudes regarding reverse commuting:

1. How long have you been a reverse commuter?

2. How long have you been commuting to your current job?

3 How did you first happen to start reverse commuting?

4. Do you prefer to live in the city, regardless of where you work? Why?

5. Do you prefer to work in the suburbs, regardless of where you live? Why?

6. Which combinations is best, and why?

   a. Living and working in the city?

   b. Living and working in the suburbs?

   c. Living in the city and working in the suburbs?

   d. Living in the suburbs and working in the city?

B. Reverse commuting behavior

1. Do you travel alone, in a car pool, or something else? Why?

2. How long have you been travelling that way? Why?

3. How long is your trip to work each way?

4. Do you ever use PACE, Metra or CTA to get to work? Under what circumstances?

IF YES:

4. How long does the trip to work take when you do use PACE, Metra or CTA? Do you have to transfer between PACE, Metra, and CTA? How many transfers?

IF NO:

5. If you wanted to use PACE, Metra, or CTA to get to work, is any line or route available for you to use?

   a. Would you know how to get to your place of work by PACE, Metra, or CTA

   b. What would be the best way to inform you about PACE, Metra, and CTA?

C. Attitudes regarding commuting by car

1. What are the advantages to you of using a car for your commute?

2. What are the disadvantages to you of using a car for your commute?

3. On the basis of any experience you have had with CTA/PACE/Metra, how do you rate commuting by car vs. using them, to work with regard to:

   a. Length of trip
   b. Convenience
   c. Comfort
   d. Privacy
   e. Cost
   f. Personal security
   g. Restfulness and physical effort
   h. Anything else?

4. Have you ever heard of or used a subscription bus or vanpool service? (IF NO) These are services that pick you up at your home and drop you off at your place of work, either by bus that seats 30-35 passengers or by vans that seat 8-10 passengers. You normally pay monthly for these services. On the basis of either your own experience or on what you may have heard about them, how do you rate commuting by car vs. using a bus subscription or vanpool service?

D. Trends

1. In the past few years, has commuting by car been getting better or worse for you? In what ways?

   a. Hassle free
   b. Personal security
   c. Cost
   d. Dependability

2. In what ways would PACE, Metra or CTA have to be improved before you would consider using them instead of driving your car to work?

3. How much of a need do you think there is for improving PACE, Metra, and CTA service for reverse commuters? Why do you feel that way?

4. If public transportation is or were to be available, how do you feel about the following services? CTA rapid transit, CTA bus, PACE Suburban bus, Metra, vanpools, subscription bus?

E. Fares and Cost

1. How much do you estimate it costs you each month to commute to work by car? Please include all costs, including parking and, gas.

2. Do you think it would cost you less, the same or more if you used PACE, Metra or CTA instead? Why do you think that would be the case?

3. What would the monthly cost have to be before you would consider traveling by:

   a. Metra, PACE or CTA?
   b. A subscription bus?
   c. A vanpool

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